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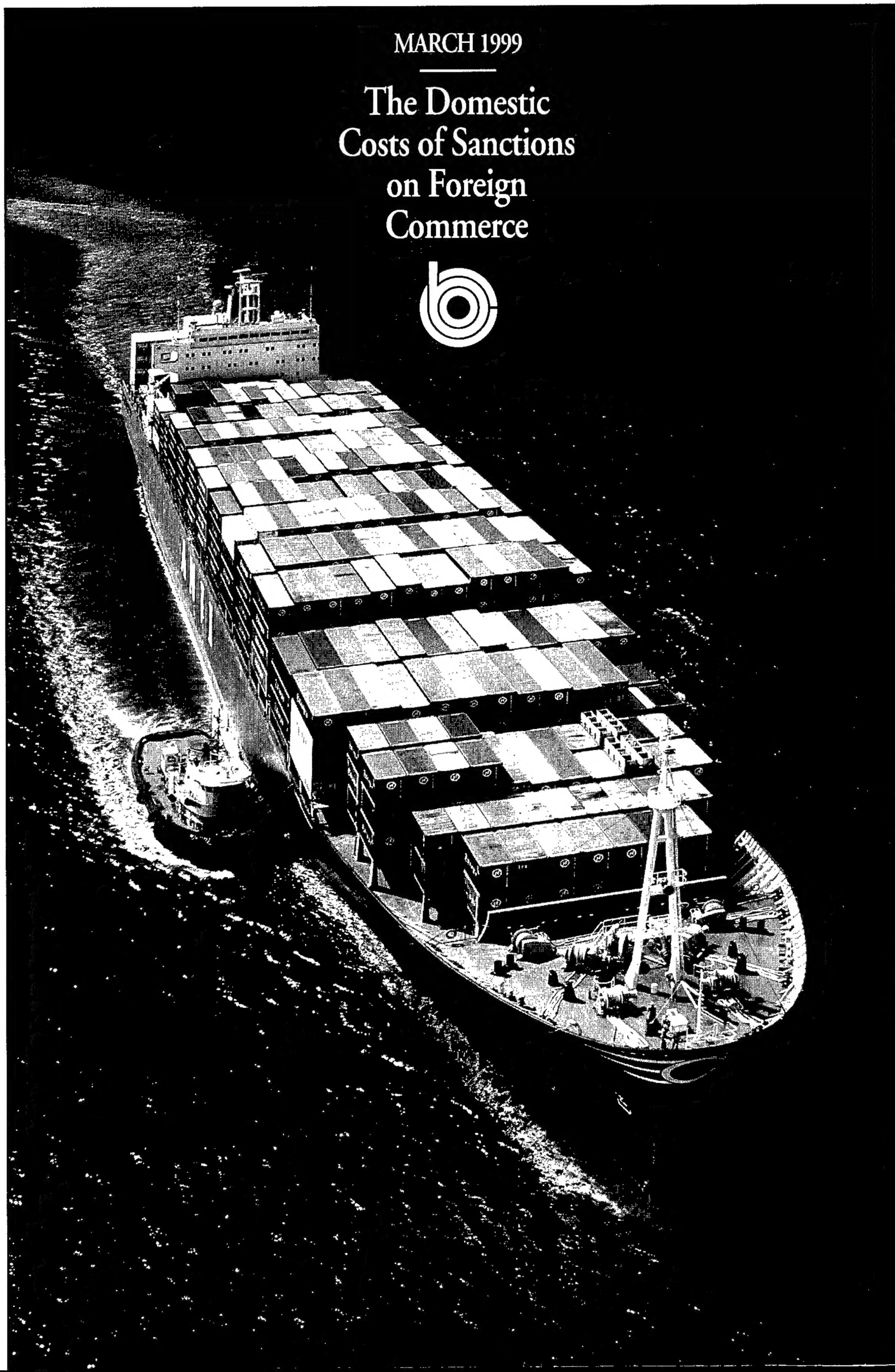
The Domestic Costs of Sanctions on Foreign Commerce



THE DOMESTIC COSTS OF SANCTIONS ON FOREIGN COMMERCE

The Congress of the United States
Congressional Budget Office

NOTES

Numbers in the text and tables of this study may not add up to totals because of rounding.

This study uses various forms of the verb "sanction" to mean "to impose (or be subject to) sanctions."

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Preface

The federal government uses sanctions on foreign commerce to influence the activities of other nations. Those sanctions can have costs for the United States as well as for the countries that they target. This Congressional Budget Office (CBO) study, prepared at the request of the Chairman and the former Ranking Democrat of the House Committee on International Relations, examines the size and nature of the domestic costs of sanctions. In accordance with CBO's mandate to provide objective and impartial analysis, the study contains no recommendations.

Richard D. Farmer of CBO's Natural Resources and Commerce Division (NRCD) wrote the study under the supervision of Jan Paul Acton and Elliot Schwartz. Bruce Arnold of NRCD, Christopher Williams of the Macroeconomic Analysis Division, and Joseph Whitehill of the Budget Analysis Division provided internal review. The study also benefited from comments by Kimberly Elliott of the Institute for International Economics, Mun Ho of Harvard University, Warwick McKibbin of the Australian National University, Dianne Rennack and Bob Shuey of the Congressional Research Service, and Robert Stern of the University of Michigan.

Christian Spoor edited the manuscript, and Leah Mazade proofread it. Rae Wiseman typed the many drafts. Kathryn Quattrone prepared the study for publication, and Laurie Brown prepared the electronic versions for CBO's World Wide Web site, both assisted by Martina Wojak-Piotrow.

Dan L. Crippen
Director

March 1999

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Summary

One way the U.S. government tries to influence the activities of governments, businesses, or citizens of other nations is by imposing (or threatening to impose) sanctions on foreign commerce. Broadly, the term "sanctions" refers to a collection of actions that the government can take directly to restrict the flow of goods, services, or capital between the United States and another country in order to promote foreign policies or enhance national security. The immediate aim of sanctions is to deter objectionable actions (and encourage unobjectionable ones) by making objectionable actions more costly for other countries. But government restrictions on foreign commerce can also impose costs on U.S. businesses and consumers.

This study examines the costs of sanctions to the U.S. economy, netting out losses and gains for different groups. Not all government actions that appear to restrict foreign trade and investment actually add new restrictions. Actions that do add them can have costs for the overall U.S. economy if they reduce economic efficiency, but those costs are likely to be tiny when the sanctions are imposed on small developing economies—the most common target. In contrast, sanctions on large industrialized economies that subsequently retaliate with sanctions of their own (thus causing world trade to shrink) may have large costs for the United States.

For sanctions on small economies, several factors besides the low volume of commerce at stake can make the U.S. costs even smaller. In general, unilateral sanctions on trade in most goods will cost the United States less than multilateral sanctions because unilateral measures are less effective in restricting overall economic activity. U.S. losses will also be smaller for sanctions that narrowly apply to imports for which substitutes are readily available or to exports for which substitute markets are easy to find. If sanctions restrict government assistance programs like foreign aid or export subsidies, they may even produce small economic gains.

Nevertheless, the immediate costs to business owners and workers who are directly and adversely affected by such sanctions appear great to them. But looking at the nation as a whole, benefits to other sectors of the economy will generally offset all of the losses they incur. In addition, various government programs may aid their adjustment in the short term.

Growing International Commerce and the Use of Sanctions

The costs to the U.S. economy of imposing sanctions will depend in large part on the volume of the nation's foreign commerce that the sanctions affect. That commerce—which includes international trade in goods and services and foreign investment—has been growing more rapidly than other sectors of the U.S. economy in recent decades. Domestic production for export now accounts for 12 percent of the nation's gross domestic product. Earnings from export production and receipts from foreign investment account for 18 percent of national income.

The attractiveness of sanctions as a policy tool has grown along with the volume of U.S. trade with developing and nonmarket economies (the frequent targets of sanctions). Changes in U.S. foreign policy and the world political environment have also played a role. Controlling nuclear proliferation and international terrorism are still goals for sanctions, but in addition, sanctions are increasingly being used to address concerns such as human rights, drug trafficking, and the environment. Many of those new goals are difficult to achieve by military or diplomatic means.

The growing integration of national economies also enhances the apparent usefulness of sanctions as a tool of foreign policy—the more a country trades, the bigger the potential cost to it of disrupting that trade. However, economic integration also means that circumventing sanctions is easier today than in the past. If U.S. sanctions are to be effective in meting out economic punishment to particular nations, the participation of third countries may be important.

The Congressional Research Service recently identified more than 190 separate provisions of current law that either restrict or provide authority to restrict foreign commerce for reasons of foreign policy or national security. (That number includes restrictions on government assistance.) Many of those provisions are related to specific policy goals, such as nuclear proliferation or human rights; others narrowly target relationships with specific countries. Assessing how much trade is being affected by such restrictions is difficult because considerable redundancies exist in sanctions policies. Assessing the effects of sanctions on the total level of trade is also difficult because the domestic policies of the target countries play a large role in limiting their ability to trade competitively.

Types of Sanctions

The federal government has discretion under a multitude of statutes to prohibit or otherwise restrict commerce between the United States and other countries. Those restrictions can take a variety of forms. The government can discourage travel to or from a specific country by altering its visa and passport policies or the rules under which a country's ships or aircraft can stop in the United States. The government can directly limit current U.S. exports and imports. Or, through restrictions on financing and direct investment by U.S. businesses or international financial institutions (such as the World Bank), it can discourage future exports and imports. In addition, the government can curtail its own programs that provide foreign aid or promote international trade (such as loan guarantees or other subsidies for U.S. exports).

The degree of control the government can exercise over each of those types of activity varies widely —from broad control over exports to very little control over private financing. However, in special circumstances, such as a declared national emergency, the President can simultaneously and extensively limit all aspects of U.S. trade and investment with a particular country (or individuals). In a few instances, the President can also extend sanctions to third countries (or their citizens) that have commercial dealings with the target country. A recent example of third-party sanctions is the Helms-Burton Act, which aims to dissuade other countries from investing in Cuba.

Factors That Limit the Effect of Sanctions

The first step in investigating the domestic costs of sanctions is to recognize that not all legislative and executive actions that call for restrictions on foreign commerce will actually change current trade and investment activity. For example, restrictions on government assistance to one country may make more aid funds available for other countries. In some cases, a "new" sanction may duplicate actions required by previous legislation or be largely symbolic (such as when it targets a country that the United States has little trade with anyway). The legislation calling for sanctions may give the President discretion to delay or forgo imposing them. Or the sanctions may be coupled with other government actions to soften their impact on the U.S. economy (such as increased government purchases of agricultural commodities or Trade Adjustment Assistance payments to U.S. businesses or workers hurt by sanctions). Finally, the effectiveness of U.S. sanctions may depend largely on the participation of other countries.

What Economic Theory Says About the Domestic Costs of Sanctions

Sanctions that effectively restrict foreign commerce can affect the U.S. economy in various ways. Whether the restrictions are on exports, imports, or foreign investment, their net costs for the United States as a whole are likely to be small when the sanctions are imposed on any but the nation's largest trading partners. Those net losses will be much smaller than any direct losses for particular industries. The reason is that broad market forces operating in the U.S. economy cause changes in exports to be offset, at the national level, by changes in other exports and in imports. (Falling exports can cost jobs; falling imports can create jobs to replace that loss of supply.)

The conclusion that sanctions generally have a small overall effect on the national economy reflects four economic arguments.

- The countries most likely to be sanctioned—developing nations and nonmarket economies—are not major U.S. trading partners. (About two-thirds of U.S. trade is with large industrialized countries that are political allies and that have open economies and democratic institutions.)

- U.S. sanctions often include restrictions on foreign aid or export assistance for specific countries. Those restrictions may not affect total assistance spending or, if they do, can generate savings for U.S. taxpayers and reduce domestic prices.

- Substitutes for many sanctioned imports are readily available at little additional cost and with little loss of consumers' satisfaction. Similarly, alternative markets for many sanctioned exports are available with little loss of producers' earnings.

- Other investment opportunities are widely available to substitute for many sanctioned investments with little loss of return.

The source of U.S. costs from sanctions is a decline in the gains that result from trade. Free trade reduces direct costs for consumers and businesses and enables companies to achieve economies of scale from increased sales for export. The national costs of sanctions would generally grow over time because they would have a compounding effect on investment in the United States and abroad. In some circumstances, temporary unemployment could add to the short-term costs of sanctions as workers and businesses adjusted to changing market patterns.

The impact on the target country, and hence the costs to the United States in general, would be greatest if other nations joined the United States in imposing sanctions. Conversely, the loss of gains from trade and the national costs in general would be smallest if the United States acted unilaterally. For many if not most goods, a unilateral approach alters only the routes that sanctioned goods (or their components) follow and not the total level of trade. That is especially true for unilateral sanctions on investment, because capital is so fungible. Over a long period, however, all resources are fungible, so the national costs of unilateral sanctions—in contrast to multilateral sanctions—should diminish with time. (The distinction between the effects of unilateral and multilateral actions is moot in cases in which the United States is the sole supplier or consumer of a sanctioned good.)

The costs of sanctions for individual industries typically exaggerate the costs for the overall economy, since the nationwide response reflects a net outcome of losses and gains. In contrast to their nationwide effects, unilateral sanctions would be more costly than multilateral sanctions for individual U.S. industries.

Losses for specific industries may result as much from changes in future opportunities as from changes in current business activity. And in a few cases, the value of changes in future opportunities could dwarf the immediate changes in business activity. Future consequences are an important consideration for sanctions on investments, because less foreign investment today can mean fewer sources of imports or markets for exports tomorrow. Future consequences are also important for any sanctions that affect trade in markets in which long-term business relationships are important. Various special considerations can affect future trade, such as concerns about the reliability of the

United States as a trading partner and the prospect of retaliation by foreign governments.

Estimates of the Domestic Costs of Sanctions

Research by economists into the effects of current or past sanctions and trade liberalization policies—as well as calculations by the Congressional Budget Office (CBO) based on that research—indicates that the domestic costs of sanctions indeed vary according to the type of country being targeted, the number of other nations participating, and whether the focus of attention is the overall U.S. economy or specific industries.

Costs to the Overall Economy

To date, sanctions on foreign commerce have had only a small combined impact on the national economy. The only major study to look at the effects of all current sanctions—a 1997 paper by Gary Hufbauer and colleagues at the Institute for International Economics —indicates that sanctions cost the United States about $1 billion each year in national income. It also estimates that the country loses as much as $19 billion annually in exports of goods. Those figures may seem large, but they are very small compared with total national income in 1997 of more than $6.6 trillion and total goods exports of nearly $700 billion.

That is not to say that sanctions cannot pose a greater threat to the economy in the future. To estimate the domestic costs of future sanctions, CBO used the results of Hufbauer's research and several studies of the gains from lowering trade barriers. (In general, the benefits from opening trade are likely to be symmetrical with the costs of closing it.) On the basis of those results, CBO calculated a set of ratios that estimate the loss in economic welfare for each dollar reduction in U.S. exports, depending on the size of the economy targeted by the sanctions, the participation of other nations, and the time horizon. Using those ratios, analysts could estimate the total cost of a particular sanction (a step that was beyond the scope of this analysis) by multiplying the appropriate ratio by the direct loss of trade attributable to that sanction.

The review of past research supports the theory that for sanctions targeting a particular economy, the national costs of unilateral U.S. actions are likely to be smaller than those of multilateral actions. Also, the costs of sanctions tend to grow over time and to vary by the type of economy targeted. In general, those costs will be:

- Small for small developing economies, which account for little U.S. trade now;

- Medium for big emerging economies, such as China, which are likely to account for an important share of U.S. trade in the future; and

- Large for industrialized economies, which are highly integrated with the U.S. economy and already account for a significant share of U.S. trade.

The lowest cost to the overall economy would come from a unilateral sanction imposed on a small developing economy. ("Small" refers to the size of the economy, not the population.) Countries in that category—mainly nations in Latin America, Africa, Asia, and Eastern Europe—together buy about 15 percent of U.S. exports. Current U.S. sanctions disproportionately target developing economies that individually account for a very small share of U.S. trade and that supply commodities that are widely available from other sources. In addition, many current U.S. sanctions are unilateral actions. Thus, Hufbauer's 1997 study, which examines the effects of current sanctions, provides an indication of the costs of unilateral sanctions on small developing economies. His results suggest a loss in U.S. national income of 5 cents for each $1 decrease in exports because of such sanctions. (That study is a statistical analysis that combines short- and long-term effects.)

The highest cost to the U.S. economy should come from sanctions imposed on a large industrialized economy. Countries in that category—including Western European nations, Canada, Japan, and Australia—account for about 60 percent of U.S. exports. To determine what sanctions against those countries might cost, CBO looked at studies of the gains from trade liberalization by Mun Ho and Dale Jorgenson, Warwick McKibbin, Drusilla Brown and colleagues, and Gary Hufbauer and Kimberly Elliott, among

others. Several of those studies modeled the effects of comprehensive worldwide initiatives to remove barriers to trade. Their results, when viewed from the opposite perspective, indicate that initiatives to raise trade barriers against a large industrialized economy —and reciprocal actions by the targeted country— could lower U.S. income in the short term by between 15 cents and 35 cents for each $1 decrease in exports.

Other studies of those countries considered the effect of unilateral U.S. actions to reduce barriers to trade. Viewed from the opposite perspective, those results indicate that the costs of multilateral sanctions on trade could lower U.S. income by 10 cents to 20 cents for each $1 loss of exports in the long term. No comparable short-term results were available, but such results would probably indicate a lower cost than 10 to 20 cents. (Short-term effects are the appropriate concern with sanctions on large industrialized countries because the strong social and business relationships between the United States and its major trading partners would create pressure to resolve any trade disputes quickly.)

The short-term income losses from cutting off trade with a big emerging economy, such as China, are likely to fall somewhere within the broad range of 5 cents to 35 cents for each $1 drop in U.S. exports, depending on the nature of the sanction and the trade that is disrupted. For example, action restricting a few imports to the United States that are widely available would have at most a small cost; action affecting a large number of specialized imports could have a large cost.

The actual effects of sanctions on small and large economies may well be smaller than the estimates presented here. Hufbauer's 1997 study—which forms the basis for CBO's analysis of costs for actions against small economies—probably overstates the disruption of exports attributable to current sanctions. It does not account for other important factors that could explain the low volume of trade with sanctioned countries, such as the fact that many of those countries (such as Cuba) have domestic policies that contribute to poor economic performance. Moreover, many sanctions on small economies only limit U.S. foreign aid or restrict trade in commodities (such as petroleum) for which substitutes are readily available. Those actions should have little, if any, cost to the United States.

Costs to Particular Industries

The direct costs of sanctions to individual industries would generally be much larger than costs to the overall economy. Despite being largely offset at the national level, those direct losses to an industry can provide a useful indicator of the social costs of adjusting to trade restrictions. Whatever their size, those losses would appear significant to the businesses, workers, and communities directly affected by them. Because the companies and employees who benefit from redirected business as a result of sanctions do not compensate the ones who lose, sanctions may seem unfair. Additional social costs of sanctions, beyond the dollar amounts of trade disrupted, would arise from the need to find new employment or to relocate, and from the uncertainty those changes bring. Government assistance in the form of unemployment insurance or training is probably not fully acceptable to workers as a substitute for lost employment opportunities.

Other Cost Considerations

In weighing the domestic costs of sanctions, it is important to remember that other actions the government may take to address foreign policy or national security concerns will have costs as well. By providing a method for estimating the income losses attributable to particular sanctions, CBO's analysis may give policymakers the ability to compare the costs of alternative actions.

In a few extreme situations, the alternative to sanctions may be military intervention. Aside from the threat to lives, such intervention can consume significant resources. In less extreme cases, the diplomatic alternatives to sanctions may include various types of government assistance to encourage countries to change their policies. Such assistance may carry its own price tag, which should be compared with the costs of sanctions. In any event, those costs, whether large or small, are likely to be only one consideration in any decision to impose sanctions.

Chapter One

Introduction

The federal government uses sanctions on foreign commerce, or the threat of sanctions, to promote particular foreign policies or enhance national security. Sanctions include legislative and executive measures that prohibit certain types of government-assisted or private commerce (trade and foreign investment) or that prescribe penalties for engaging in such commerce. The immediate goal of sanctions is to discourage objectionable activities (and encourage unobjectionable ones) by making objectionable activities more costly for another country. But those measures can have costs for the United States, too, if they significantly disrupt trade and investment.

A basic question confronting lawmakers is whether the benefits of particular sanctions, in terms of achieving policy goals, exceed their costs to the U.S. economy. Opponents argue that in many cases sanctions are not effective as tools of foreign policy. Proponents counter that disrupting trade is preferable to more extreme and perhaps more costly measures, such as military intervention, and can give the President important diplomatic leverage.

This study examines some basic issues about the domestic costs of sanctions; its purpose is to help lawmakers determine the net benefits of particular sanctions to achieve foreign policy goals. The study does not look at how sanctions affect foreign economies or how successfully they achieve their policy objectives.

What a Sanction Is and Is Not

In its broad sense, "sanctions" refers to a collection of actions that the government takes to directly restrict the flow of goods, services, or capital between the United States and another country. That definition generally includes diplomatic actions that impede commerce, restrictions on normal commercial trade, and limits on financing activities. Some people also consider restrictions on foreign aid or trade assistance programs to be sanctions. (For more details about the various types of sanctions, see Chapter 2.) Federal legislation may permit or direct the President to restrict all or some of the commerce with a specific country, or it may establish general conditions that let the President restrict particular types of commerce with any country (see Table 1). Today, the United States imposes some type of commercial restriction on at least 29 nations (see Table 2).

Sanctions have a variety of objectives: to promote foreign policies, such as the protection of human rights or the environment; to enhance national security, for example, by controlling the spread of weapons technology; or to insulate the economy from emergencies, such as a disruption of world oil supplies. This analysis of the domestic costs of sanctions focuses on actions that meet three criteria:

Table 1.
Major Laws That Potentially Restrict Foreign Commerce, by Type of Activity

	Commercial Relations[a]	Private Commerce	Government-Assisted Commerce[b]	Financing
Authority for Broad Sanctions Against Any Country				
Trading with the Enemy Act of 1917	x	x	x	x
United Nations Participation Act of 1945	x	x	x	x
International Emergency Economic Powers Act of 1977	x	x	x	x
Chemical and Biological Weapons Control and Warfare Elimination Act of 1991	x	x	x	x
Nuclear Proliferation Prevention Act of 1994 (Glenn Amendment)				x
Authority for Broad Sanctions Targeted at Specific Countries				
Iraq Sanctions Act of 1990		x		x
Iran-Iraq Arms Nonproliferation Act of 1992		x	x	
Cuban Liberty and Democratic Solidarity Act of 1996 (and Cuban Democracy Act of 1992)	x	x	x	x
Iran and Libya Sanctions Act of 1996	x	x	x	x
Authority for Export Controls				
Atomic Energy Act of 1954 (and Nuclear Nonproliferation Act of 1978)		x		x
Arms Export Control Act of 1968	x	x	x	
Export Administration Act of 1969[c]	x	x		
Authority to Alter Import Quotas or Tariffs				
Smoot-Hawley Tariff Act of 1930		x		
Trade Expansion Act of 1962 (Section 232)		x		
Trade Act of 1974 (Jackson-Vanik Amendment)	x	x		
Caribbean Basin Economic Recovery Act of 1983		x		
Narcotics Control Trade Act of 1986	x	x		
Restrictions on Foreign Aid, Trade Assistance, or International Financial Institutions				
Export-Import Bank Act of 1945			x	
Foreign Assistance Act of 1961	x		x	
International Financial Institutions Act of 1977				x
Foreign Operations, Export Financing, and Related Programs Appropriations Act of 1998	x	x	x	x
International Security and Development Cooperation Act (Various years)		x	x	
National Defense Authorization Act (Various years)	x	x	x	x

SOURCE: Congressional Budget Office based on information from Dianne E. Rennack and Robert D. Shuey, *Economic Sanctions to Achieve U.S. Foreign Policy Goals: Discussion and Guide to Current Law*, CRS Report for Congress 97-949 F (Congressional Research Service, June 5, 1998).

NOTE: With much of the legislation listed here, the current restrictions on foreign commerce occur in the law as amended.

a. Such as agreements governing air and sea transport, personal travel, and communication with a foreign country or its citizens.

b. Such as foreign aid, trade promotion, and loan guarantees from the Export-Import Bank and similar U.S. agencies.

c. Expired. Authority extended by executive order.

Table 2.
Countries Named in Current Laws That Potentially Restrict Foreign Commerce, by Type of Activity

	Commercial Relations[a]	Private Commerce		Government-Assisted Commerce[b]		Financing	
		Military	Other	Military	Other	IFI	Private
Afghanistan				x	x		
Angola	x				x		
Azerbaijan				x	x		
Bosnia-Hercegovina				x	x		
Cambodia				x	x	x	
Chile				x			
Congo (formerly Zaire)				x	x		
Cuba	x	x	x	x	x	x	x
Guatemala				x			
Haiti	x			x			
Indonesia		x		x			
Iran	x	x	x	x	x	x	x
Iraq	x	x	x	x	x	x	x
Liberia				x			
Libya	x	x	x	x	x	x	x
Mauritania		x		x	x		
Myanmar (formerly Burma)	x	x	x	x	x	x	
Nicaragua		x		x			
North Korea	x			x	x		
Pakistan		x		x			
Panama				x			
People's Republic of China	x	x	x	x	x	x	x
Russia/Former Soviet Union/East Bloc			x	x	x		
Serbia and Montenegro	x			x	x	x	x
Sudan				x	x		
Syria				x	x		
Turkey				x	x		
Ukraine					x		
Vietnam	x						

SOURCE: Congressional Budget Office based on information from Dianne E. Rennack and Robert D. Shuey, *Economic Sanctions to Achieve U.S. Foreign Policy Goals: Discussion and Guide to Current Law*, CRS Report for Congress 97-949 F (Congressional Research Service, June 5, 1998).

NOTE: IFI = international financial institution.

a. Such as agreements governing air and sea transport, personal travel, and communication with a foreign country or its citizens.

b. Such as foreign aid, trade promotion, and loan guarantees from the Export-Import Bank and similar U.S. agencies.

- Economic sanctions—as distinct from other tools of foreign policy, such as military intervention or noncommercial diplomatic measures, that may also carry domestic costs.[1]

- Sanctions employed for reasons of foreign policy, national security, or national emergency—as distinct from actions that serve only business interests, such as protective quotas or countervailing duties.[2]

1. For a review of diplomatic actions to influence other governments, see State Department Advisory Committee on International Economic Policy, Sanctions Working Group, *U.S. Foreign Policy Tools: An Illustrative Matrix of Selected Options*, September 1997 (available at http://www.usaengage.org/resources/matrix.html).

2. For a recent discussion of U.S. actions to counter unfair trade practices, see Congressional Budget Office, *Antidumping Action in the United States and Around the World: An Analysis of International Data*, CBO Paper (June 1998).

o Federal sanctions—as distinct from actions by state and local governments or from trade and investment boycotts initiated by private groups or foreign governments.[3]

Some of those distinctions can be difficult to make. Economic sanctions are commonly undertaken along with noncommercial diplomatic initiatives and, on occasion, with military action. Military support can be critical to blocking certain trade, as is the case with the current sanctions on Iraq. Various domestic commercial interests will be helped or harmed by any political action that disrupts trade and investment. For example, sanctions on imports from South Africa to protest that country's apartheid policies during the 1980s helped protect U.S. industries such as steel and coal. And frequently, much of the impetus for federal sanctions—such as those on South Africa and more recently on Burma—comes from local efforts.

The ultimate goal of sanctions may be to alter a foreign government's actions or simply to state U.S. displeasure with those actions. But the immediate goal is to raise the costs to other countries (whether their governments, businesses, or citizens) of activities that threaten the security or economic well-being of the United States or otherwise run counter to U.S. foreign policy.

The Federal Government's Use of Sanctions

Changes in the world economy have increased the potential effectiveness of sanctions, making them more appealing to U.S. policymakers. In particular, sanctions appear more likely to harm foreign economies as the volume of U.S. trade with developing or formerly nonmarket countries (the frequent targets of sanctions) has increased and as those countries have become more integrated into the global economy. At the same time, such globalization means that the effectiveness of some types of sanctions depends increasingly on the participation of other nations.

Political changes may also have contributed to the growing appeal of sanctions as a policy tool. With the end of the Cold War, the United States' foreign policy objectives have changed. In addition to recent concerns about controlling the spread of weapons of mass destruction and countering international terrorism, the United States is now emphasizing more goals that are difficult to enforce by military or diplomatic means alone. Those goals include promoting human rights (for example, by supporting democratic institutions, improved working conditions, or religious freedom); controlling the production and distribution of illegal drugs; and protecting the environment (for instance, by restricting commerce that endangers wildlife or limiting U.S. assistance on projects that contribute to global warming).

In addition, the differing political agendas of the President and the Congress may have a bearing on the number of sanctions imposed. In some cases, the Congress has enacted legislation that the President did not seek, such as the Cuban Liberty and Democratic Solidarity Act (known as the Helms-Burton Act), which authorizes legal action against third countries that invest in confiscated property in Cuba. In other cases, the President has used the broad authority of existing statutes to enact restrictions that the Congress may not have supported. The overall effect of those different agendas on the use of sanctions is uncertain, however. The President frequently has discretion under sanctions legislation not to act, and the Congress can write new legislation that redirects executive actions.

Although those various factors have increased the appeal of sanctions, it is not clear that the use of sanctions has actually grown. Analysts who believe that sanctions are proliferating cite various estimates of sanctions activity by different organizations (see Table 3). But those estimates generally measure very different things. Small counts come from analyses that consider only sanctions "episodes" (which count all of the separate actions against a country to achieve

3. An industry coalition, USA*ENGAGE, reports on laws that restrict the purchases and investments of state and local governments; see USA*ENGAGE, *State and Local Sanctions Watch List*, January 11, 1999 (available at http://www.usaengage.org/news/status.html). In early 1999, 14 such laws were pending or inactive. In addition, the Internal Revenue Service (IRS) reports on the participation of U.S. businesses in international boycotts that are not permitted by federal actions. In 1990, 256 businesses received requests from foreign governments to participate in such boycotts, although only 41 actually joined in and incurred IRS penalties. See Internal Revenue Service, *Statistics of Income Bulletin*, vol. 12, no. 2 (Fall 1992).

Table 3.
Estimates of the Federal Government's Use of Sanctions

Source of Estimate	Period Covered	Number of Sanctions	Type of Sanction Counted
Institute for International Economics[a]	1914-1990	95	Sanctions episodes (counts related actions against a country as one episode)
National Association of Manufacturers[b]	1993-1997	61	Legislative and executive actions
Congressional Research Service[c]	1997	191	Sanction-related provisions in legislative statutes in force at the end of 1997
USA*ENGAGE[d]	1998	31	Sanction-related bills considered by Congressional committees or passed by the Congress

SOURCE: Congressional Budget Office based on the sources listed below.

a. Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberly Ann Elliott, *Economic Sanctions Reconsidered: History and Current Policy* (Washington, D.C.: Institute for International Economics, 1990), Table 1.1.

b. National Association of Manufacturers, *A Catalog of New U.S. Unilateral Economic Sanctions for Foreign Policy Purposes, 1993-96* (Washington, D.C.: National Association of Manufacturers, 1997).

c. Dianne E. Rennack and Robert D. Shuey, *Economic Sanctions to Achieve U.S. Foreign Policy Goals: Discussion and Guide to Current Law*, CRS Report for Congress 97-949 F (Congressional Research Service, June 5, 1998).

d. USA*ENGAGE, *Federal Sanctions Watch List for the 105th Congress*, November 12, 1998 (available at http://www.usaengage.org/news/fedwatch.html).

a particular goal as one episode); bigger counts include executive actions in addition to legislation.[4]

Attempts to measure the frequency of sanctions also stumble against differences in opinion about what types of action constitute a sanction. Some analysts do not consider restrictions on foreign aid to be sanctions since no country has a right to such aid. (Many U.S. actions to limit agricultural exports are actually restrictions on foreign aid.) Some officials also would not count restrictions in support of environmental goals as sanctions.[5]

Another problem in counting sanctions is that all sanctions are not created equal: different types of action can lead to different degrees of restriction on foreign commerce and different economic effects. For example, a decision to withhold export licenses would probably be more restrictive than a decision to withhold guarantees of export loans. In addition, some of the laws that authorize the President to restrict trade do not require it. Other laws call for limits on foreign commerce but do not actually add any new restrictions. And from time to time sanctions are lifted because of changing circumstances. For all of those reasons, estimates of the number of sanctions that U.S. policymakers impose probably represent rough orders of magnitude more than precise tallies.

Opinion in the Congress is divided on sanctions. Some Members are considering more sanctions. Others are concerned about what they see as an increased pace of legislative and administrative action on new sanctions. Their goal is to ease existing restrictions on foreign commerce and perhaps make it more difficult

4. An analysis of sanctions episodes appears in Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberly Ann Elliott, *Economic Sanctions Reconsidered: History and Current Policy* (Washington, D.C.: Institute for International Economics, 1990). An analysis of legislative and executive actions appears in National Association of Manufacturers, *A Catalog of New U.S. Unilateral Economic Sanctions for Foreign Policy Purposes, 1993-96* (Washington, D.C.: National Association of Manufacturers, 1997).

5. For example, see the statement of Stuart E. Eizenstat, Under Secretary of State, before the Senate Task Force on Economic Sanctions, September 8, 1998.

to impose new ones. Such Members are particularly concerned about several current sanctions:

- The Administration's ability to restrict trade with China—for example, by limiting export permits for dual-use commodities or not extending most-favored-nation tariff status each year.

- A web of restrictions on trade with and investment in Iran and other countries that is complicating the development of oil resources in the Caspian Sea (see Box 1).

- Provisions of the Helms-Burton Act and the Iran and Libya Sanctions Act that could affect the United States' negotiations with major trading partners or provoke complaints by them to the World Trade Organization.

Legislation to reform the process of imposing sanctions was introduced in the 105th Congress, both in the House (as H.R. 2708) and the Senate (as S. 1413). Among other things, those bills would have required the Congress or the President to assess the domestic costs of unilateral sanctions before such sanctions became law.

The Role of Foreign Commerce in U.S. Output and Income

The cost to the U.S. economy of imposing sanctions on another country depends in large part on the volume of commerce that those sanctions affect. For-

Box 1.
Sanctions and the Development of Foreign Oil Resources

In the business of finding and producing oil, whatever company makes the first discoveries in a region often gains valuable knowledge about the location and properties of the resources there. That knowledge gives the company an advantage over its competitors in the future development of those resources. Additional advantages may accrue from owning oil-gathering and transportation facilities. As a result, whenever a new region with significant potential opens up, all of the large oil companies want to become involved.

The fear of being left out underlies part of the current controversy over U.S. sanctions that are affecting the development of oil resources in the Caspian Sea. Five nations control access to that region: Iran, Azerbaijan, Russia, Kazakhstan, and Turkmenistan. U.S. sanctions that directly target Iran and Azerbaijan could limit investment by U.S. oil companies in that region. So could a provision in the Iran and Libya Sanctions Act that threatened U.S. action against Russia's Gazprom for investing in the Iranian petroleum sector. Moreover, some Members of Congress are concerned about Russia's policies on weapons exports and religious persecution, and those concerns could lead to more sanctions on Russia.

Besides curbing U.S. investment, sanctions policies could restrict the ultimate choice of pipeline routes to bring oil from the Caspian Sea to Western markets. That choice could affect the future cost of delivering Caspian Sea oil and the strategic importance of the countries that the pipeline traverses.

Some analysts express additional concern that the sanctions described above and others on oil-producing nations will reduce the future supply of oil.[1] That could harm the U.S. economy by pushing oil prices higher than would otherwise be the case.

However, oil in the ground is like a stockpile: whatever is not produced today remains available for production later. In some scenarios, with an outlook for rising oil prices (or falling production costs) in the future, delaying the development of certain oil resources might be a prudent policy on economic grounds alone—all the more so in cases in which a fear of being left out motivates the rush to invest. Although consumers in the United States would benefit in the short term from lower oil prices, those prices could be all the higher in the future for accelerating the development of foreign oil resources.

1. For example, see Edward D. Porter, *Economic Sanctions Against Oil Producers: Who's Isolating Whom?* Issue Analysis No. 105 (Washington, D.C.: American Petroleum Institute, August 1998).

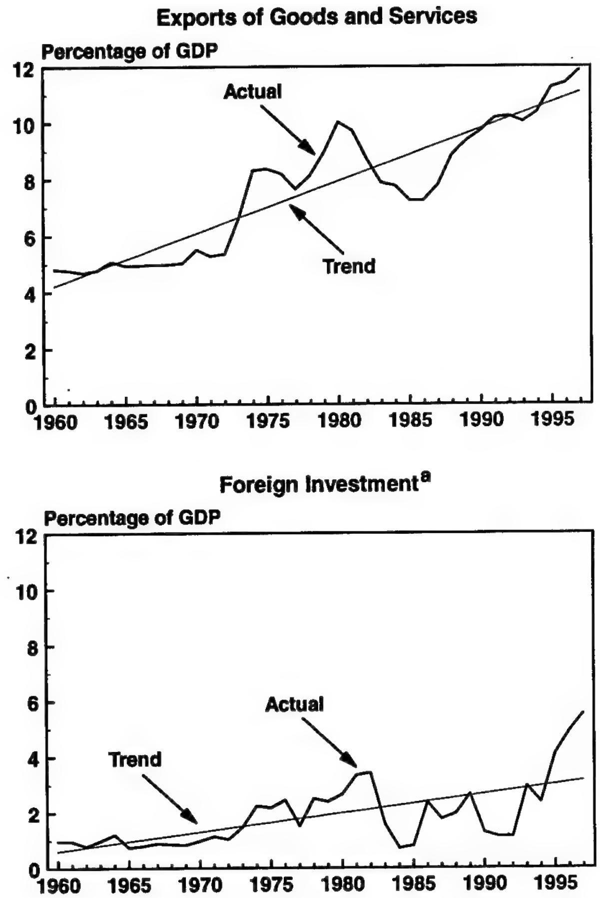
eign commerce—including foreign investment and international trade in goods and services—has grown more rapidly than other sectors of the U.S. economy in recent decades. Roughly 12 percent of the nation's gross domestic product (GDP) now comes from producing goods and services for export (see Figure 1). In some parts of the country, production of exports plays an even greater role in the local economy. In addition, the United States invests resources equal to more than 5 percent of GDP in foreign countries each year. The earnings from sales of exports and the receipts from foreign investments together generate 18 percent of U.S. national income. (As a broad measure of economic welfare, national income, unlike gross domestic product, includes changes in U.S. receipts from foreign investments.)

Exports are important to the U.S. economy because they support employment and generate business income and tax revenues. But more fundamentally, exports are how the nation pays for the goods and services it imports. Those imports are valuable because of the variety of products and quality they offer consumers and because of the cost savings they yield for the economy. Low-cost imports increase national income and improve consumers' welfare.

Foreign investment by U.S. businesses is important for the same reasons. Investment in manufacturing plants abroad, for example, may boost U.S. exports of equipment used in plant construction. Based on current investment activity, foreign investment indirectly supports about one-third of current U.S. exports. And ultimately, what the United States invests abroad today generates an important stream of future income that helps pay for future imports.

So far, the amount of U.S. commerce disrupted by sanctions has been relatively small. Results from one study indicate that U.S. exports of goods to countries that are the target of sanctions may be only $15 billion to $19 billion lower than would otherwise be the case.[6] That compares with total goods exports of nearly $700 billion in 1997. And for various reasons, those results probably overstate the actual loss of exports (see the appendix for more details).

Figure 1.
U.S. Exports and Foreign Investment as a Percentage of Gross Domestic Product, 1960-1997



SOURCE: Congressional Budget Office based on data from Council of Economic Advisers, *Economic Report of the President* (February 1998), Tables B-1 and B-103.

a. Foreign investment is defined as the increase in U.S. private assets abroad, including foreign direct investment, purchases of foreign securities, and loans to foreigners by U.S. banks and nonbanking concerns.

How Economists View the Costs of Disrupting Trade

Economists identify two types of costs that sanctions may impose: income losses for particular industries or

6. Gary Clyde Hufbauer and others, *U.S. Economic Sanctions: Their Impact on Trade, Jobs, and Wages*, working paper (Washington, D.C.: Institute for International Economics, April 1997), available at http://www.iie.com/CATALOG/WP/1997/SANCTION/sanctnwp.htm.

groups and welfare losses for the nation as a whole. As explained in Chapter 4, the net costs of sanctions to the nation are much smaller than the total losses for any particular industry.

Studies of the losses for a single industry commonly consider just one market or even just one sale. That approach ignores any offsetting gains for other industries or from new sales. An industry's losses may simply reflect the value of lost exports or, for industries harmed by import sanctions, the increased cost of imported goods. Studies that look at the welfare loss for the overall economy—which is the focus of this study—consider changes throughout the economy and factor in the losses and gains for all producers and for consumers.

The primary source of net loss to the nation from sanctions is a decline in the gains produced by trade. Two other sources of loss are less important. One is adjustment costs—resulting largely from temporary unemployment and reduced output—that occur as the economy shifts its productive resources to accommodate the changing pattern of trade. (Adjustment costs could accompany any major change in trade policy.) The other source is a worsening of the terms of trade if sanctions restrict U.S. businesses that have dominant positions in overseas markets.[7]

Observations about the domestic costs of restricting trade are most relevant to multilateral sanctions. Actions in which other countries join the United States to impose sanctions on particular trade can be more effective than unilateral actions in disrupting the total level of trade and, hence, affecting the performance of the U.S. economy. With a few important exceptions, the costs of unilateral sanctions generally fall on individual businesses, not on the national economy.

A Loss of Gains from Trade

Simply put, a nation gains from trade because it can increase its total consumption of goods and services by exporting those in which it possesses a comparative advantage and importing others.[8] The nation may gain even more if that trade is in activities that experience increasing returns to scale (a greater-than-proportional rise in output for a given rise in inputs). Such trade enables businesses that sell in larger markets to lower their costs. The gains attributable to returns to scale are likely to be much smaller, especially in the short term, than the direct gains in economic efficiency from trade that is based on comparative advantage. Over time, however, returns to scale may assume growing importance—for example, if technical progress depends on current levels of production.

Comparative advantage reflects a country's relative endowment of the resources that go into making goods for export. That endowment includes the natural resources, capital stock, technologies, and educated population that contribute directly to the production of goods and services. It also includes factors—such as a reliable workforce, open legal system, financial infrastructure, and stable economic policies—that enable U.S. businesses to offer those goods and services to other countries with minimal uncertainty about cost and delivery.

Trade that is based on comparative advantage enhances the economic efficiency of all nations by enabling each to specialize—or do more of what it does best. Additional gains may arise over time as current trade and investment promote growth in foreign economies. Such growth further increases the size of world markets and adds to the United States' comparative advantage in high-income activities.

Comparative advantage, however, is not the basis for all foreign commerce. Foreign assistance is a prime exception. Observations about the loss of gains from trade may not apply when trade or investment that relies on government assistance is disrupted. Indeed, in some cases, economic efficiency may increase without such assistance.

Direct Losses from Sanctions. Sanctions and other artificial barriers to commerce can directly diminish a country's gains from trade. The domestic costs of

7. "Terms of trade" refers to the ratio of a country's export prices to its import prices. Changes in that ratio are considered more important than the ratio itself. The terms of trade worsen when import prices rise relative to export prices or when export prices decline relative to import prices.

8. For a general discussion of gains from trade, see Dennis R. Appleyard and Alfred J. Field, *International Economics* (Homewood, Ill.: Richard D. Irwin, 1992), or other standard textbooks on that subject.

sanctions show up in reduced consumer welfare, a broad measure of which is the change in national income. Such a change shows the losses that result from limits on current consumption and limits on future consumption (through limits on savings).

Those observations apply whether the barriers are to trade or foreign investment. The United States benefits from its exports of goods and services that generate high incomes (generally, activities that intensively use capital and an educated and skilled labor force) and from the cost savings attributable to its low-cost imports. U.S. foreign investment activity also yields current benefits: it is one way the nation exports services that may otherwise be difficult to trade directly. Those exports reflect the nation's comparative advantage in activities such as management, finance, and engineering.

Additional Losses Over Time. The welfare losses from sanctions on trade and investment are likely to grow over time. Sanctions on foreign commerce can affect both current U.S. income (the base for future economic growth) and the rate of such growth.

By reducing the current gains from trade, sanctions make all economies—U.S. and foreign—less efficient. If the actions are short lived, the return of free trade will most likely restore the initial income losses. If they are long lived, as is the case with sanctions on Cuba and Iran, the result may be a lower base of growth.

The rate of U.S. economic growth may also drop if the sanctions disrupt the activities of certain high-income, high-growth domestic industries. Generally, those are industries that are active in developing new products and new production techniques. Economists point to industries such as aircraft, computers, and pharmaceuticals as important sources of innovation that benefit the general economy. The source of their growth is what economists call "learning by doing."[9]

9. See, for example, G.M. Grossman and E. Helpman, "Trade, Innovation, and Growth," *American Economic Review*, vol. 80, no. 2 (May 1990), pp. 86-91. For a review of the link between international trade and long-run growth, see Congressional Budget Office, *Recent Developments in the Theory of Long-Run Growth: A Critical Evaluation*, CBO Paper (October 1994).

In general, foreign commerce increases the pace of learning as businesses enter larger markets and encounter greater competition from new goods and ideas. The economy also benefits because nations avoid the wasted effort of duplicating research and development activities. (For businesses that have established dominant market positions and do not face increased competition with trade, selling in a larger market lets them raise their monopoly profits and helps the nation improve its terms of trade.)

Temporary Costs of Adjusting to New Trade Patterns

Beyond losing some of the gains from trade because of sanctions, the economy may incur costs in responding to the change in trade patterns. (That would also occur in response to actions that opened trade instead of closing it.) Adjustment costs—in the form of temporary unemployment and lower output—will occur whenever the economy must shift resources to accommodate a sudden change in the overall mix of goods that producers and consumers demand.

Rigidities in a market—such as price controls, high costs for converting capital to new uses, or inflexible wages—impede that adjustment. Of particular concern to economists are how well markets convey signals (through their pricing) of the market imbalance that results from trade disruptions, and how well households and businesses act on those signals to switch to other markets or goods.

Adjustment costs will be highest where price signals are muted and the costs of short-term substitution are great. In any case in which the adjustment is slow, losses may occur for individual business owners and for the workers who are temporarily unemployed or underemployed. However, some of those losses may be offset by current government programs such as unemployment insurance or assistance to workers specifically harmed by imports. In the agriculture sector, domestic support programs may offset the effects of trade limits on commodity prices.

Multilateral Versus Unilateral Sanctions

Halting the flow of goods and services between the United States and another country often requires a multilateral effort. Otherwise, sanctions can create a strong economic incentive to divert trade and investment to or from the target nation through third countries. For fungible commodities such as crude oil, diverting trade flows is a simple matter; for other goods or services, it may be costly. The likelihood of such diversions is great when the United States acts alone.

In general, unilateral actions can be costly for individual U.S. businesses that lose out when markets adjust to accommodate new trade flows. The costs for the overall U.S. economy, however, will usually be negligible because the nation's total levels of trade and investment will not change.

Four exceptions exist in which unilateral sanctions can affect the overall economy. One is when the United States is the sole supplier of a sanctioned export or the target country is the sole supplier of a sanctioned import. In that case, multilateral and unilateral actions are equivalent. Another is when the action is against an important trading partner and that country retaliates with its own sanctions, thereby constricting world trade. The other two exceptions relate to long-term costs from the United States' loss of international market power or damage to U.S. businesses' international reputation for reliability.

Loss of Future Market Power. Unilateral sanctions can create domestic costs when they affect businesses whose future activities depend greatly on up-front investments in resources or business relationships. Those businesses include any that rely on current sales of equipment to generate future sales of specialized support equipment and services or that rely on consumer sales to generate brand loyalty. As noted earlier, a prime example is producers of certain high-technology goods that use their investments in research and development and their gains from "learning by doing" to establish dominant market positions. Another example may be petroleum producers that make early discoveries and rely on information from those discoveries to give them a cost advantage in future exploration (see Box 1 on page 6).

In each of those cases, the domestic cost derives from the future loss of competitive advantage (which economists call a terms-of-trade effect). Businesses from third countries may use the United States' absence to establish market power for themselves. Or third countries may support the development of industries in the target country through indirect investment. Either way, costs to the United States could continue after the sanctions ended because the full gains from trade would not return.

Damage to the Country's Reputation as a Reliable Trading Partner. Unilateral sanctions may also have national costs if they undermine the reputation of U.S. businesses as reliable suppliers. That reliability is an important attribute of the exports that the United States offers to world markets. Thus, the simple fact that the U.S. government is willing to disrupt trade for reasons of foreign policy can undermine the nation's comparative advantage in those goods and services for which reliability of supply is especially important.

That effect may be small, however, judging from the history of sanctions. In business, memories are short, and the certainty of a good deal today tends to dominate decisions about buying and selling. The partial embargo of U.S. grain sales to the Soviet Union in 1980—a response to that country's invasion of Afghanistan—is often cited as having damaged the U.S. reputation for reliability. But today the countries of the former Soviet Union do not maintain any formal barriers to imports of U.S. agricultural commodities.[10] To the extent that political risks remain, the World Bank and many governments (including the United States') offer trade insurance to help businesses manage that type of uncertainty.

The conduct of U.S. foreign policy is only one source of market uncertainty, and a relatively minor one at that. Other nations may be as unreliable or more unreliable than the United States but for different reasons, such as domestic labor disputes, transportation problems, or poor-quality merchandise. And other industrialized countries use trade sanctions as a tool of foreign policy too. Overall, the United States remains a relatively secure source of supplies.

10. See Office of the United States Trade Representative, *1997 National Trade Estimate Report on Foreign Trade Barriers* (1997).

Economic Considerations in a Decision to Impose Sanctions

The potential costs to the domestic economy, whether large or small, would most likely be only one consideration in deciding whether to impose sanctions. Some thought about the sanctions' cost to the target country and likely effectiveness in altering behavior would also be important. (Those considerations are outside the scope of this analysis.) But additional aspects of the domestic costs may be important as well. Some of those costs, such as the personal losses of dislocated workers, may be difficult to quantify.

To the extent that policymakers focus on costs, two questions beyond the immediate changes in economic activity are important. One is, What are the relative costs of alternative actions that the government could pursue? Sanctions can have an economic cost and still be less expensive than, say, military intervention. The other question is, What are the economic benefits of the successful pursuit of foreign policy and security goals? Ultimately, the prospects for U.S. businesses abroad may be well served by U.S. policies that, for example, aim to protect the rights of foreign workers.

Types of Sanctions

The federal government has discretion under a multitude of statutes to prohibit or otherwise restrict commercial relations, private and government-assisted commerce, and financing between the United States and other countries. When needed, the Congress can provide additional authority. Within those broad categories of commerce, seven major types of sanctions are possible under current laws: restrictions on international transport, personal travel, and communication; on current exports; on current imports; on foreign aid; on trade promotion activities by the government; on lending by international financial institutions, such as the World Bank and the International Monetary Fund; and on private financing of trade and investment.[1] Those various sanctions have different direct effects on trade and capital flows (see Table 4). In many cases, sanctions against a particular country or sanctions to promote a particular policy include a collection of government actions to restrict different aspects of commerce, based on various statutes and regulations.[2]

The degree of control the government can exercise over different types of sanctioned activity varies widely—from broad control over exports to very little control over private financing. However, in special circumstances, such as a declared national emergency, the President can simultaneously and extensively limit all aspects of trade with and investment in a particular country. And in a few instances, the President can also extend sanctions to third countries that have commercial dealings with the target country.

Restrictions on International Transport, Travel, and Communication

At any time, the President can take a variety of diplomatic actions that affect all types of trade and investment by altering the basic environment for commercial relations. Those actions include changing the rules of special programs—some of which were part of bilateral agreements—that establish the rights of foreigners to dock their ships in U.S. ports or land their aircraft on U.S. soil. In addition, the government can impede the ability of businesses to communicate and make deals by prohibiting foreigners from visiting the United States and discouraging U.S. citizens from traveling abroad. For example, in regard to specific countries, it can issue travel warnings, restrict the use of passports, or close diplomatic posts. Moreover, the government can change its own procurement policies to prohibit purchases from residents or businesses of certain countries.

1. For a list of reports that provide more information about U.S. sanctions, see the bibliography at the end of this study.

2. For example, for a detailed analysis of the actions that support just the goal of promoting worker rights, see Congressional Budget Office, *Promoting Worker Rights in Developing Countries: U.S. Policies and Their Rationale*, CBO Memorandum (April 1997).

Table 4.
Types of Federal Sanctions and the Foreign Commerce They Directly Affect

Activity Limited by Sanction	Affects Current Trade: Exports	Affects Current Trade: Imports	Affects Capital Flows: Trade Financing	Affects Capital Flows: Investment Financing
Commercial Relations (International transport, personal travel, and communication)	x	x	x	x
Private Commerce				
Issuance of export licenses	x			
Import quotas and tariff preferences		x		
Government-Assisted Commerce				
Foreign aid	x		x	
Trade promotion	x		x	x
Financing				
By international financial institutions	x	x	x[a]	x
By private U.S. entities	x	x	x	x

SOURCE: Congressional Budget Office.

a. Funding that provides liquidity to foreign governments and banks.

Limits on Exports

Restrictions on the sale of U.S. goods and services abroad generally have one of two objectives. In some cases, the goal is to limit some or all trade with specific countries. In others, it is to limit trade in the technologies that underlie those goods and services—technologies that could be used to the detriment of national security.

Three statutes give the President some degree of control over all exports from the United States. One is the Export Administration Act, which allows the President to limit any exports for reasons of foreign policy, national security, or a shortage of critical supplies. (The act expired in 1994, but the President has extended those export-administration regulations by executive order under the authority of the International Emergency Economic Powers Act.)

Two other statutes—the Atomic Energy Act (as amended by the Nuclear Nonproliferation Act) and the Arms Export Control Act—authorize regulations to restrict the licensing of exports that could be used to construct nuclear and other weapons. By extending those restrictions to items or technologies that could contribute in any way to weapons construction, the President has a large degree of control over all high-technology exports.

The Bureau of Export Administration in the Department of Commerce manages export licenses for products on its Commerce Control List, including some items that may have dual civilian and military functions.[3] The Office of Defense Trade Controls in the State Department manages export licenses for

3. See Department of Commerce, Bureau of Export Administration, *1997 Annual Report* (available at http://www.bxa.doc.gov/press/98/contents.htm), for a list of export controls maintained for foreign policy purposes.

weapons-related products on its U.S. Munitions List, in coordination with the Department of Defense's Technology Security Administration. And the Nuclear Regulatory Commission licenses exports that are related to the construction of nuclear facilities. To help strengthen those controls, the United States also coordinates its regulation of the arms trade with other nations in such forums as the Australia Group, the Nuclear Supplier's Group, the Missile Technology Control Regime, and the Wassenaar Arrangement.

Limits on Imports

The President's control over imports is not as sweeping or direct as his control over exports. Authority exists to restrict the imports of certain goods through quotas and to raise tariffs on imports from certain countries. Import quotas are generally a tool of commercial policy, imposed to protect domestic industries by specifying maximum levels of imports. In the past, however, the government has revised quotas for various commodities to achieve foreign policy and national security goals. The same is true for tariffs, which are fees levied on imports from a particular country. Tariffs are also instruments of commercial or sometimes economic development policy that lawmakers can alter to pursue foreign policy ends.

Import Quotas

The most important restrictions on imports in terms of the dollar value of trade affected have been those applied to crude oil under section 232 of the Trade Expansion Act. That law authorizes the President to limit the import of any strategic commodity for reasons of national security. It provided the authority for quotas on oil imports in the 1960s and fees on such imports in the 1970s. It also provided the original authority for the U.S. embargo of oil imports from Iran in 1979. In those cases, national security was identified with the health of the domestic oil industry.

Quotas on imports of sugar and meat products have been revised for reasons unrelated to protecting domestic industries. In 1983, for example, President Reagan lowered the limits on sugar imports from Nicaragua and raised them for other Central American countries to support his Administration's policies in that region. The authority for agricultural quotas comes from the Agricultural Adjustment Act, trade agreements, and international commodity pacts.

The government continues to restrict various imports for a number of policy and security reasons. The Arms Export Control Act authorizes limits on weapons imports from any country for reasons of national security. The International Security and Development Cooperation Act authorizes banning any imports from countries that support terrorism. The Smoot-Hawley Tariff Act supports the nation's human rights policies by allowing the President to prohibit imports of any commodity produced using prison labor.

Authority to restrict imports also exists in a number of environmental laws. Perhaps the most sweeping is the Fishermen's Protection Act (Pelly Amendment), which authorizes banning imports of any product from a country whose trade practices undermine international programs to protect endangered and threatened species. Section 609 of the 1990 appropriation act for the Departments of Commerce, State, Justice, and related agencies authorizes an embargo of shrimp products from countries that do not take specific actions to protect sea turtles that get caught in shrimp nets. (That embargo is being challenged in the World Trade Organization.) Additional limits on imports of particular species come from the Endangered Species Act, the High Seas Driftnet Fisheries Enforcement Act, the Marine Mammal Protection Act, and the Wild Bird Conservation Act.

Tariff Rates

The United States sets tariffs on imports from different countries at different rates. The countries that face the lowest rates are ones that have been granted most-favored-nation (MFN) trading status or that are part of a program to encourage exports in developing countries, such as the Generalized System of Preferences (GSP) or the Caribbean Basin Initiative (CBI).

Besides revising import quotas, the President can affect imports by using existing authority to revoke

MFN trading status or the low tariff rates available through the GSP, CBI, or similar programs. (By treaty, the President cannot revoke MFN status for members of the World Trade Organization.) When imports from a country carry higher tariffs, buyers in the United States may seek other sources of supply. Some people argue that ending favorable tariff status is akin to taking away a benefit rather than imposing a cost. Either way, the economic effect is the same: varying tariff rates by country distorts the relative prices of imports and, thus, people's economic choices.

Under the Trade Act of 1974, the annual decision about whether to extend a country's MFN status has been tied to its emigration policies (in the case of some nonmarket economies) or human rights record (most notably, in the case of China).[4] Some critics of that process argue that the need for annual MFN extension impedes trade by creating uncertainty for U.S. importers. In addition to occasionally revoking MFN status, the United States has withdrawn countries' benefits under the GSP or CBI for such reasons as expropriation of U.S. property, support for terrorism, or violations of worker rights.

Restrictions on Government Assistance

The government can directly influence trade and foreign investment through its spending on foreign aid and trade promotion, including its support of lending activities by international financial institutions. Restrictions on such spending do not constitute sanctions in some people's view because they withdraw a benefit rather than impose a cost. Access to government assistance is not a right, that argument goes. But many studies of sanctions do include actions to restrict government assistance, and some mistakenly identify those restrictions as a cost to the nation.

Distinguishing between actions that affect free trade and those that affect government assistance is important because the two sets of actions can have very different consequences for the U.S. economy. In many cases, withdrawing assistance can reduce distortions of trade, to the benefit of U.S. consumers and taxpayers.

For individual U.S. businesses, however, restrictions on government assistance can have immediate adverse consequences if the assistance is not rechanneled to other countries. Some of those restrictions will directly affect current trade in particular commodities; others will affect future trade. The distinction is not always clear. Actions that cut federal aid or raise the costs of financing trade have a direct impact on current exports. Actions that restrict federal support of private investment may affect current or future trade. (For example, investment in foreign construction projects may require U.S. exports of equipment and services today, whereas the future output from those projects may be a source of U.S. imports.)

Actions that restrict government assistance are a particular concern for some supporters of the agriculture industry. The reason is that the United States sends a large dollar amount of agricultural products abroad as food aid or with the benefit of federal export subsidies. In 1997, for example, U.S. exports of food, feed, and beverages totaled over $50 billion.[5] Foreign assistance paid for $0.8 billion of that as food aid, and new federally guaranteed loans helped finance another $2.4 billion of those agricultural exports.

The federal government's foreign assistance and trade promotion activities are common targets for Congressional action. The Congressional Research Service recently identified 191 separate provisions of current laws that restrict foreign commerce for reasons of foreign policy or national security; of those, 102 authorize limits on U.S. programs that provide foreign aid or promote trade.[6] That total omits another 24 restrictions on international financial institutions.

4. For background, see Vladimir N. Pregelj, *Most-Favored-Nation Status of the People's Republic of China*, CRS Issue Brief IB97039 (Congressional Research Service, February 17, 1998).

5. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, vol. 78, no. 7 (July 1998), Table F.1.

6. Dianne E. Rennack and Robert D. Shuey, *Economic Sanctions to Achieve U.S. Foreign Policy Goals: Discussion and Guide to Current Law*, CRS Report for Congress 97-949 F (Congressional Research Service, June 5, 1998).

Foreign Aid

Much of the United States' foreign assistance is bilateral—provided directly to other countries. That assistance takes the form of supplying less developed countries with in-kind aid (food and other necessities), grants to pay for the purchase of U.S. goods and services (especially military items and agricultural commodities), and technical support (for instance, through the Peace Corps). More broadly, the U.S. government also funds the development activities of international organizations such as the United Nations. In all, the government spent nearly $11.2 billion on development, humanitarian, and security assistance in 1997 (see Table 5).

Table 5.
Discretionary Spending on U.S. International Assistance Programs, Fiscal Year 1997

Type of Aid	Outlays (Millions of dollars)
International Development and Humanitarian Assistance[a]	
Bilateral development assistance	2,206
Assistance to newly independent states of Central and Eastern Europe	1,244
Food aid	760
Refugee programs	716
Voluntary contributions to international organizations[b]	307
Peace Corps	226
Other	256
International Security Assistance	
Foreign military financing[c]	3,000
Economic Support Fund[d]	2,226
Other security assistance	227
Total[e]	11,168

SOURCE: Congressional Budget Office using data from *Budget of the United States Government, Fiscal Year 1999: Budget*, p. 293, Table 33-2.

a. Excludes $1,834 million in U.S. contributions to multilateral development banks (the World Bank and various regional banks), which are a type of international financial institution.

b. Includes specialized agencies of the United Nations (the Food and Agriculture Organization, the International Labor Organization, and the World Health Organization). Excludes international peacekeeping activities.

c. Excludes government-to-government sales of defense goods and services worth about $10,500 million.

d. Includes grants of at least $1,200 million for Israel and $800 million for Egypt.

e. Excludes outlays for the conduct of foreign affairs ($3,941 million), foreign information activities ($1,169 million), and financial programs ($870 million).

The Foreign Assistance Act (the basic law authorizing nonmilitary support to other countries) defines who is and who is not eligible to receive U.S. aid. Amendments to that law make countries ineligible that, in the United States' view, expropriate U.S. property, support terrorism, support drug trafficking, or violate human rights. One of the most sweeping authorizations for denying eligibility comes from the Freedom Support Act, which sets conditions that prohibit all forms of direct assistance, including humanitarian aid, to the government of Azerbaijan. Restrictions on military assistance are covered by the Arms Export Control Act.

Trade Promotion

The U.S. government also provides bilateral support for other countries through export price subsidies and financial assistance to businesses—although the primary goal of that assistance is to promote U.S. exports or counter the restrictive or distorting trade practices of other nations. Agricultural exports, for example, are subsidized through export credits that the Department of Agriculture issues under its General Sales Manager program.[7]

Other trade assistance comes through the low-interest loans, subsidized loan guarantees, or project insurance available from three U.S. government agencies: the Export-Import Bank, the Overseas Private Investment Corporation, and the Commodity Credit Corporation. The Export-Import Bank has four main functions:

7. For more information about subsidies of agricultural exports, see Daniel A. Sumner, *Agricultural Trade Policy: Letting Markets Work* (Washington, D.C.: AEI Press, 1995).

- Providing direct loans to foreign buyers of U.S. goods and services,
- Insuring U.S. exporters against losses from defaults by foreign borrowers or buyers,
- Guaranteeing that commercial loans to U.S. exporters for working capital (such as to pay for materials and labor) will be repaid, and
- Guaranteeing that U.S. commercial loans to foreign buyers of U.S. goods and services will be repaid.

Table 6.
Federal Direct Loans and Loan Guarantees to Promote U.S. Exports, Fiscal Year 1997 (In millions of dollars)

Source	Outstanding Balance (End of year)	New Loan Obligations and Guarantee Commitments	Subsidy Obligations
Export-Import Bank			
Direct Loans	10,124	1,549	44
Loan Guarantees	22,111	10,610	744
Overseas Private Investment Corporation			
Direct Loans	120	133	4
Loan Guarantees	2,122	2,143	73
Commodity Credit Corporation			
Loan Guarantees	4,564	3,500	298
Total			
Direct Loans	10,244	1,682	48
Loan Guarantees	28,797	16,253	1,115

SOURCE: Congressional Budget Office using data from *Budget of the United States Government, Fiscal Year 1999: Analytical Perspectives*, Tables 8-8 and 8-9, and *Appendix*.

In fiscal year 1997, the bank's new and outstanding loans totaled $12 billion, and its loan guarantees totaled $33 billion (see Table 6). On a smaller scale, the Overseas Private Investment Corporation supports U.S. investments in developing countries by financing projects and insuring against political risks. And the Commodity Credit Corporation provides financing, in the form of loan guarantees, for agricultural exports.

Even though the mission of those lending agencies is to support U.S. business interests, the President has broad discretion in their management to block the financing of any project for any reason. The legislation that authorizes and funds those agencies can also set conditions for withholding financing. For example, an amendment to the Export-Import Bank Act requires limits on financial support for projects involving specific countries that have detonated nuclear devices. That provision was applied to India and Pakistan in the wake of their nuclear testing in the spring of 1998.

Lending by International Financial Institutions

The United States provides multilateral assistance to foreign nations by contributing to international financial institutions (IFIs) that support investment in the economies and social infrastructures of developing countries. The IFIs include the World Bank Group, regional lending organizations such as the Asian Development Bank, and the International Monetary Fund (IMF). The IMF makes loans that provide working capital to countries with balance-of-payment or exchange rate problems. In 1997, the United States added $1.8 billion to the capital funds of the World Bank and various regional banks; in 1998, the Congress approved an increase of $18 billion for the IMF.

Although U.S. contributions to the capital base of the IFIs pay for unrestricted assistance, such assistance can benefit the United States. Part of it may go directly to pay for exports of U.S. goods and services that are inputs to particular capital projects. Even funds that do not generate U.S. sales when they are initially spent will ultimately create new demand for U.S. exports from somewhere abroad or help foreign countries repay past U.S. foreign lending (such as loans to purchase U.S. exports). The IFIs' multilateral

assistance will also improve long-term U.S. trade if the successful development of foreign economies promotes future growth in U.S. exports and imports.

The U.S. government has little control over the day-to-day activities of the IFIs. Its ability to influence IFI decisions comes largely by instructing the U.S. executive directors of those institutions to informally discourage or vote against certain loans or technical assistance programs. In accordance with U.S. legislation, the United States opposed 599 loans or technical support projects by multinational development banks between 1976 and 1995.[8] That number may exaggerate the United States' influence, however. In cases in which U.S. opposition is known ahead of time, loans are seldom put to a formal vote. The executive board of the IMF, for instance, makes most of its decisions on a consensus basis; in the past few years, the U.S. representative has formally voted only about a dozen times on the 2,000 decisions the IMF has made.[9]

U.S. opposition to IFI lending is most effective when it has the support of other nations. For example, international outrage over the Tiananmen Square massacre in 1989 led the World Bank and the Asian Development Bank to restrict their operations with China to loans covering only basic human needs. After unrestricted multilateral lending to China resumed in 1990, the United States abstained or voted no 201 times on such loans between November 1990 and March 1997, but all of the loans were approved nonetheless.

Periodically, the Congress can exert substantial indirect pressure on the IFIs through the appropriation process by withholding U.S. funding for those institutions. In 1998, Congressional concerns about the policies of the IMF delayed action on the President's request to raise the U.S. contribution to the fund's capital base.

Restrictions on Private Financing of Trade and Investment

The U.S. government is not the only source of financing for international trade and foreign investment. Private U.S. institutions—such as banks and other businesses—are an even more important source. By restricting its foreign aid or trade promotion operations, the government can indirectly affect private financing by altering the general business climate abroad or raising the total cost of project financing. But the government can also directly restrict private financing and investing by imposing sanctions on those activities. Sanctions that target short-term financing can limit current trade; other actions can affect future exports and imports. Prohibitions on foreign direct investment, for example, may result in fewer U.S. exports of equipment and services that are used to construct production facilities abroad. In addition, future U.S. imports that could have come from those facilities may be curtailed.

Under the Export Administration Act (as currently extended by executive order), the President can forbid U.S. lenders to finance any exports to a particular country. That provision would generally apply to the short-term financing of current trade. As noted earlier, the President can also restrict travel rights in such a way as to impede normal business relations with any country.

Several other statutes narrowly target financial transactions with certain countries. For example, the Antiterrorism and Effective Death Penalty Act prohibits U.S. citizens from taking part in financial transactions with nations that the Administration considers supporters of terrorism. That prohibition affects current trade and investment. The Nuclear Proliferation Prevention Act (contained in the authorizing legislation for the State Department) restricts certain activities of banks and businesses in countries that are constructing nuclear weapons. That provision was ap-

8. "U.S. Opposition to MDB Loans" (memorandum from the Department of the Treasury, Office of the Assistant Secretary for International Affairs). For details of U.S. efforts to restrict lending by IFIs to China, see Dianne E. Rennack, *China: U.S. Economic Sanctions*, CRS Report for Congress 96-272 F (Congressional Research Service, October 1, 1997).

9. Statement of Karin Lissakers, U.S. Executive Director to the International Monetary Fund, before the Subcommittee on General Oversight and Investigations, House Committee on Banking and Financial Services, April 21, 1998.

plied to India and Pakistan as a result of their nuclear testing in early 1998. In addition, the Iran and Libya Sanctions Act restricts new investment in the petroleum industries of those countries—including direct investment, purchases of securities, and loans.

Other than those laws, the general legislative authority to influence private financing is limited, with the exception of comprehensive sanctions that can be invoked in emergencies. However, comprehensive statutes such as the International Emergency Economic Powers Act may include the additional power to require that U.S. firms divest themselves of assets they control abroad. That divestment could reduce the future flow of income from abroad if the assets were sold for less than the value of their income-generating potential.

Comprehensive Restrictions on All Aspects of Trade and Investment

Three main statutes give the President the authority to restrict any or all aspects of trade and investment with a foreign nation, including the extension of private loans and the seizure of foreign-owned assets in the United States. Those statutes are the International Emergency Economic Powers Act (IEEPA), the Trading with the Enemy Act (TWEA), and the United Nations Participation Act. The trade and investment controls authorized by those laws—and by several additional laws that target particular countries—are administered by the Office of Foreign Assets Control in the Treasury Department.[10]

To call on the IEEPA, the President must declare an emergency, subject to the provisions of the National Emergencies Act. The objective of the IEEPA is to provide authority for sanctions in response to external threats to national security, foreign policy, or the economy. Sanctions under the act may be comprehensive—such as the current restrictions on exports, imports, and bank loans for Iran and Sudan—or narrowly targeted toward particular trade or investment activities.[11] For example, President Carter cited the act in freezing Iranian financial assets in the United States during the hostage crisis. Today, the government cites the IEEPA as authority for seizing the U.S. assets of drug traffickers and terrorists and for limiting the spread of weapons of mass destruction.

In principle, the Trading with the Enemy Act is a tool for imposing sanctions during a time of war. In the past, the conditions for invoking the TWEA were vague—President Roosevelt used it to call a bank holiday during the Great Depression. The Congress passed the IEEPA in 1997 in large part to restrict the President's ability to use emergency economic powers for a prolonged period in a noncrisis situation.

The TWEA is the authority for long-standing sanctions on Cuba and North Korea, although subsequent legislation has added to or, in some cases, relaxed those sanctions. For example, amendments to the TWEA in 1963 added a freeze on Cuban assets in the United States and a prohibition on economic transactions with Cuba to existing sanctions on arms sales and foreign assistance. The Cuban Democracy Act and the Cuban Liberty and Democratic Solidarity Act (known as the Helms-Burton Act) give the President authority to take punitive actions against third countries that trade with Cuba. Other revisions to the sanctions on Cuba, however, have enabled U.S. citizens to export certain humanitarian goods and send money to relatives there.

The U.N. Participation Act is a tool for imposing multilateral sanctions. For the President to cite that law as a basis for action requires a resolution by the U.N. Security Council and, thus, the support of other major nations. That law (along with the IEEPA and

10. The Office of Foreign Assets Control is responsible for administering sanctions under eight statutes: the IEEPA, the TWEA, the U.N. Participation Act, the Iraq Sanctions Act, the International Security and Development Cooperation Act, the Cuban Democracy Act, the Cuban Liberty and Democratic Solidarity Act, and the Antiterrorism and Effective Death Penalty Act. See Department of the Treasury, Office of Foreign Assets Control, "Foreign Assets Control Regulations" (available at http://www.ustreas.gov/ofac).

11. President Carter imposed comprehensive sanctions on Iran in April 1980 in Executive Order 12,221. President Clinton acted to continue and expand those sanctions in Executive Orders 12,957, 12,959, and 13,051. Sanctions against Sudan were imposed in Executive Order 13,067.

the Iraq Sanctions Act) provides the justification for the United States' comprehensive sanctions on Iraq.

Presidents rarely rely on only one statute—even such a comprehensive law as the IEEPA—when imposing sanctions on trade or investment. For example, a state of national emergency toward Iran has officially existed since November 1979, and broad sanctions on that country are authorized by the IEEPA and the International Security and Development Cooperation Act.[12] But more recently, additional authority for Iranian sanctions has come from the Iran and Libya Sanctions Act, the Antiterrorism and Effective Death Penalty Act, and further statutes that prohibit such activities as foreign assistance and military sales.

Extraterritorial Restrictions: Limits on Commerce with Third Countries

In certain circumstances, the scope of U.S. sanctions can be extended to third countries (or specific citizens, businesses, or organizations in those countries) that have commercial dealings with the target country. Such extraterritorial provisions may represent a logical extension of direct sanctions. For example, laws (such as the Arms Export Control Act) that require restrictions on the export of certain U.S. goods generally include restrictions on the reexport of those goods by third countries or on the sale of goods produced by third countries that incorporate particular U.S. technologies. The Iraq Sanctions Act calls on the President to encourage other nations to adopt sanctions on Iraq, in part by tracking and reporting on international compliance with U.N. sanctions on that country.

Recently, the Iran and Libya Sanctions Act threatened to raise the cost for third countries that want to invest in those nations' petroleum sectors. The act authorizes the President to impose sanctions—such as denying assistance from the Export-Import Bank or access to U.S. bank loans—on the individual investors. Likewise, the Helms-Burton Act seeks to dissuade investment by third countries in Cuba. That act subjects a foreigner who invests in expropriated property to legal claims in U.S. courts by the property's former owner.

Extraterritorial sanctions can affect the U.S. economy in several ways. Restrictions on the transshipment of sanctioned commodities to or from a target country through third countries can determine the extent to which sanctions on exports and imports actually reduce U.S. trade. Sanctions that restrict third-country investment in a target country can have the same impact as a direct restriction on U.S. foreign investment if affected businesses in the third country have U.S. ownership. In addition, those sanctions on extraterritorial investment can have the same effect as a direct restriction on U.S. exports (or imports) if U.S. businesses trade with those third-country businesses.

12. Executive Order 12,170 (issued by President Carter) and Executive Orders 12,957, 12,959, and 13,051 (issued by President Clinton) cited the authority of the International Emergency Economic Powers Act. Executive Order 12,613 (issued by President Reagan) cited the authority of the International Security and Development Cooperation Act.

Chapter Three

Factors That Limit the Effect of Sanctions

In analyzing the domestic costs of sanctions, it is important to recognize that not all legislative and executive actions that call for restrictions on foreign commerce will actually change total trade and investment. For example, limits on government assistance to one country may make more funds available for other countries. A "new" sanction may duplicate actions required by previous legislation, so no further curtailment of trade is possible. The legislation calling for sanctions may include provisions that allow the President to delay enforcement, or the sanctions may be coupled with other actions that the government can take to soften the domestic impact. And domestic effects may depend on the extent to which other nations participate in the sanctions.

Limits on Aid to One Country That Do Not Alter Total Assistance Spending

Actions by the President or the Congress can restrict U.S. aid to particular countries or government financing of trade and investment with particular countries. In many cases, however, those actions will not reduce the government's total spending on foreign assistance or financing. An agency may "reprogram" restricted funds and make them available to other nations. Or it may redirect the funds to types of assistance that are not restricted. For example, limits on foreign aid generally do not apply to humanitarian assistance and food aid. And even when they do, the limits usually apply only to aid provided to or through a country's government; aid that goes through nongovernmental organizations and private groups can generally continue.

Unless lawmakers actually rescind funding for agencies such as the Export-Import Bank and the Agency for International Development as part of sanctions legislation, those agencies' fixed appropriations mean that whatever one country loses because of restrictions on government assistance, some other country will gain. Such restrictions may be important for the targeted countries and the U.S. companies doing business there, but the domestic effects will depend mainly on what happens to total spending for government assistance. Unfortunately, no information is readily available to indicate how total appropriations for government assistance and trade promotion have changed because of sanctions.

Redundant or Symbolic Actions

New sanctions legislation may provide no additional legislative authority for restricting foreign commerce. Other legislation may be largely symbolic and not require any action. If sanctions are redundant or symbolic, they will have no effect on the U.S. economy.

In the redundant category are statutes whose only purpose is to reauthorize previous legislation or codify executive orders. For example, the Export Administration Act (EAA), which authorized government control over all exports through licensing requirements, has expired. The President has cited emergency powers in continuing the licensing program. If and when the EAA is reauthorized, the new law may not change the current scope of sanctions.

The symbolic category includes restrictions that the Congress or the President places on countries that the United States has little trade with, such as Burma and Sudan. Likewise, some statutes, such as those requiring the United States to oppose lending by international financial institutions, may have no effect because the United States does not control the lending decisions of those institutions.

Executive Discretion That Delays Implementation

The correspondence between the passage of sanctions legislation and government actions that actually restrict trade or investment may be weak. Most of the laws that authorize the use of sanctions give the President a large measure of discretion in deciding what to do and when to do it. Some laws, such as the EAA and the International Emergency Economic Powers Act, provide only standby authority. They allow the President to decide when violations of U.S. foreign policy have occurred or threats to national security or economic well-being exist. Other laws explicitly give the President authority to waive the imposition of sanctions if doing so would be in the national interest. For example, the Helms-Burton Act allows the President to defer provisions of the law that would expose businesses that invest in Cuba to lawsuits in U.S. courts. Similar legislation may require the President to certify each year the existence of conditions that necessitate sanctions (such as support for terrorism) or that permit a temporary suspension of sanctions (such as progress on human rights).

Even when legislation appears to call for resolute action, executive discretion in how to interpret the law can determine the extent of the sanctions. For example, because India conducted nuclear tests in 1998, the Nuclear Proliferation Prevention Act required the President to prohibit U.S. financing and sales of goods and services that can contribute to India's production of nuclear weapons. Before acting, however, the Administration had to decide what sales should be restricted.[1] The Administration had significant latitude in that decision for high-value exports with dual uses (commodities, such as computers, that have both commercial and military applications). It also had to distinguish between humanitarian assistance, which is not restricted, and nonhumanitarian assistance.

The effect on the U.S. economy of imposing sanctions depends to a large extent on the reaction of U.S. businesses. If businesses do not believe that the President will ultimately act under a given authority to impose sanctions, they are unlikely to alter their trade and investment behavior. But there are many cases in which a tangible threat of sanctions exists—for example, when sanctions are delayed by Presidential certification that the target country is making improvements in human rights. U.S. businesses may be reluctant to sell or invest abroad if they believe new sanctions will soon disrupt such commerce or give the target governments cause to retaliate. Uncertainty about whether sanctions will be lifted can also affect business decisions.

Actions to Soften the Impact

Legislation to impose sanctions often includes measures aimed at softening the impact of those sanctions on the U.S. economy. In some cases, the President may also take action to counter the domestic impact. (In the aftermath of the 1980 grain embargo against the Soviet Union, for example, the federal government increased its grain purchases to help compensate U.S. farmers.) The economic effects of sanctions will depend on what combination of actions the government takes.

1. Statement of Stuart E. Eizenstat, Under Secretary of State, before the House Committee on International Relations, June 3, 1998.

Prohibitions on exports under the Export Administration Act are subject to three specific conditions that limit their scope:

- *Protection of contract sanctity.* New restrictions on export licenses for reasons of foreign policy (as opposed to national security) do not apply to export contracts that have already been signed. They apply only to future trade, which may be small relative to the current level.

- *Protection of agricultural exports.* Sanctions against a country cannot apply solely to exports of agricultural goods. Thus, any resulting disruption of economic activity in the United States will be spread more broadly across industries and regions of the country.

- *Provision of adjustment support.* The act authorizes payment of federal support (subject to appropriations) to help reduce the costs of adjusting to new sanctions. Support may go to businesses as compensation for direct losses or to workers as assistance to learn new skills and find new jobs.

On the last point, it is not clear that adjustment support can significantly offset the costs of sanctions. The Department of Labor already offers Trade Adjustment Assistance (TAA) to workers who lose their jobs because of competition from imports. That assistance is in addition to what all displaced workers can generally receive in unemployment compensation. Research suggests that the retraining available through the TAA program does not have much permanent impact on the earnings of eligible workers.[2]

The Need for Multilateral Participation

The participation of other countries may determine the effectiveness of U.S. sanctions on foreign commerce. In today's global economy, restricting the flow of goods and capital between two countries can be difficult. Limiting U.S. exports to one country, for example, may require controlling not only the financing of exports but also their movement through third countries. If the sanctioned good is a finished product, the United States may also need to control trade in the intermediate goods that go into producing it. For many if not most goods, a unilateral approach by the United States only alters the routes that goods (or their components) will follow, not the total level of trade.

Cooperating fully in U.S. sanctions may be a difficult prospect for some governments. The major industrialized nations have geopolitical interests that do not always overlap. For example, the United States sends much of its foreign aid to countries in the Middle East; Japan supports its trading partners in Asia; and France and the United Kingdom largely support their former colonies.[3] As a result, a multilateral basis for sanctions on any particular country may not exist. On the other side, however, countries whose U.S. aid is cut off because of sanctions may not be able to respond by soliciting additional assistance from other nations.

Another problem with multilateral sanctions is that not all governments maintain the same systems for monitoring or restricting economic activity as the United States. Coordination is all the more difficult because local political institutions may make certain types of sanctions easier to apply than others.[4] For example, the United States maintains a licensing regime for all exports, whereas the United Kingdom focuses on regulating imports.

Ultimately, describing sanctions as unilateral or multilateral may not provide a useful distinction because of differences in the types and severity of sanctions that countries may impose. Moreover, unilateral U.S. actions may be only a first step toward encouraging the multilateral participation of other countries.

2. See Paul T. Decker and Walter Corson, "International Trade and Worker Displacement: Evaluation of the Trade Adjustment Assistance Program," *Industrial and Labor Relations Review*, vol. 48, no. 4 (July 1995), pp. 758-774.

3. See Congressional Budget Office, *The Role of Foreign Aid in Development* (May 1997); and Alberto Alesina and David Dollar, *Who Gives Foreign Aid to Whom and Why?* Working Paper No. 6612 (Cambridge, Mass.: National Bureau of Economic Research, June 1998).

4. For a brief discussion of differences in control regimes, see Barry Carter, *International Economic Sanctions: Improving the Haphazard U.S. Legal Regime* (Cambridge, England: Cambridge University Press, 1988).

Chapter Four

What Economic Theory Says About the Domestic Costs of Sanctions

Sanctions that restrict foreign commerce can affect the domestic economy in a number of ways. According to economic theory, however, the net costs for the United States as a whole are likely to be negligible when the sanctions are imposed against any but the nation's largest trading partners. That will be the case whether the sanctions are on exports, imports, or foreign investment. The reasons involve the economy's ability through market forces to adjust to changes in trade patterns; the fact that substitutes for many sanctioned goods are readily available in international or U.S. markets at little extra cost (a circumstance that is all the more likely when sanctions target a single good or country); the availability of opportunities to redirect many sanctioned investments elsewhere, abroad or domestically, with little loss in return; and the fact that many sanctions apply to foreign aid or government export subsidies and thus reduce rather than increase trade distortions.

No single description of economic changes can apply to all types of sanctions. Sanctions may include different combinations of restrictions on exports, imports, and foreign investment. Sanctions bearing on any particular activity may have varying degrees of effectiveness. Economic theory also suggests that different actions that otherwise change exports or imports by the same amount may have different costs for the general economy. (For example, tariffs to limit imports are generally less costly to the economy than direct quotas.)[1]

This analysis provides a guide for considering only the general effects of sanctions on foreign commerce. In discussing the different consequences of restrictions on government assistance programs and private commerce, it does not distinguish how those restrictions take hold or what economic activities they target.

The Net Cost Will Be Smaller Than the Direct Loss of Trade

Economic analyses of trade policy may focus on the gains from trade, the broad performance of the macroeconomy, or the workings of individual markets —each emphasizing different aspects of the domestic effects of sanctions. Trade theory and macroeconomic theory both stress the competitive pressures that act to maintain the full employment of the nation's labor and

1. For a discussion of the equivalence of tariffs and quotas, see standard texts on international trade such as Herbert G. Grubel, *International Economics* (Homewood, Ill.: Richard D. Irwin, 1981).

capital resources. A view emphasizing the workings of individual markets looks in detail at the types of adjustments that each sector of the economy makes to return to full employment. Despite their different focuses, both types of viewpoint lead to the same conclusion: a small net impact on the national economy.

A Macroeconomic View: The Investment/Saving Balance Determines the Trade Balance

Sanctions on trade and investment can affect the overall levels of U.S. exports and imports. But the difference in value between exports and imports—the current-account balance—generally reflects the difference between the nation's saving and investment.[2] (The current-account balance is based on exports and imports of goods and services, receipts and payments of income from foreign investments, and net transfer payments.) The country finances its current excess of imports over exports not from net saving but from net borrowing from abroad.

The United States has a large economy with a relatively small trade sector; thus, changes in its current-account balance depend more on changes in its domestic investment/saving balance than the other way around.[3] That means that a reduction in the gains from trade because of sanctions (or any trade barriers) should have little effect on saving or investment and, hence, on the difference between exports and imports. As a result:

- Changes in total exports (for example, because of sanctions) will tend to be matched by changes in total imports, and vice versa; and
- Losses in output and employment from restricting certain exports will largely be offset by gains from increasing other exports or increasing domestic sales to replace imports.

Overall, sanctions may cause some loss of national income (consistent with the reduced gains from trade), but that loss would be far less than the initial disruption of exports.

A Market View: Exports Are Payments for Imports

An analysis of individual markets provides another way of looking at the relationship between changes in exports and imports and the investment/saving balance.

At a basic level, international trade is the exchange of goods and services between countries. If the United States restricts the amount it exports, other countries will provide less in exchange, so the nation's imports will necessarily fall as well. (That assumes no increase in net investment by other countries in the U.S. economy—or, equivalently, no increase in net U.S. borrowing from abroad—because of the change in trade policy.)

The same logic applies to sanctions on U.S. foreign investment. A limit on new investment would lead to both reduced U.S. exports of goods and services (of things that would have been used to support construction of the sanctioned enterprise) and reduced imports (of output from that enterprise). Similarly, an order by the government to sell past investments could reduce current U.S. receipts from foreign investments (if those investments were sold for less than their income-generating value) and would result in less national income to pay for imports. (In the current account, receipts from foreign investments are recorded on the same side of the ledger as exports of goods.) The trade effects of sanctions on U.S. foreign investment may not be as balanced in the short term as the effects of sanctions on current trade. But the availability of other investment opportunities means the net costs of adjusting to such sanctions would probably be small as well.

Looking at trade as an exchange of currencies, restrictions on exports reduce the foreign demand for dollars to buy U.S. goods. But they also reduce by a comparable amount the supply of foreign currencies that the United States needs to pay for imports—al-

2. For example, see Council of Economic Advisers, *Economic Report of the President* (February 1998), pp. 246-248.

3. See Sven W. Arndt and Lawrence Bouton, *Competitiveness: The United States in World Trade* (Washington, D.C.: American Enterprise Institute, 1987).

though not necessarily imports from the target country. (Again, that result assumes no change in net investment.)

Costs Can Be Big When the Targets Are or Will Be Major Trading Partners

Although the net economic costs of sanctions are likely to be small nationwide, those costs could be larger if the sanctions disrupted commerce with important U.S. trading partners or with regions that were likely to become major economic forces in the near future. In general, the more nations that participate in sanctions, the bigger the cost to the overall U.S. economy.

Sanctions That Affect Large Industrialized Nations

Both the size and the nature of U.S. commerce with industrialized countries support the view that the domestic cost of U.S. sanctions on those countries—even unilateral sanctions—could be large. However, those nations are unlikely to be targets of major sanctions.

As noted in Chapter 1, trade and foreign investment make an important contribution to economic activity in the United States. Production of goods for export and earnings from foreign investments now generate 18 percent of U.S. national income. Commerce with a handful of large countries dominates those statistics. For example, 56 percent of the goods that the United States exported in 1997 went to Western European nations, Canada, Japan, and Australia (see Table 7). Adding in Mexico and the newly industrialized countries of Asia (Hong Kong, South Korea, Singapore, and Taiwan) pushes that total to nearly 80 percent. Data on U.S. exports of services and income from foreign investments—for which less country-level detail is available—indicate similarly high shares for those regions (see Table 8).

Besides accounting for a large volume of trade and investment, the industrialized countries are the largest markets for U.S. high-technology goods (such as aircraft, computers, and pharmaceuticals). Many economists believe those high-tech industries generate the innovations that drive long-term economic growth.

Three other attributes of U.S. commerce with its major trading partners—beyond the sheer size and the contribution to long-term growth—also indicate that disrupting business relationships with any of those countries could carry a high cost. First, trade between the United States and individual industrialized countries typically involves a multitude of goods and services. In general, more goods are harder to replace without incurring increased costs than a few goods would be.

Second, the economies of the wealthiest North American, Western European, and Asian nations are highly integrated with one another. Many of the goods and services that they trade, although appearing similar in terms of broad categories, are unique or, from consumers' perspective, highly differentiated. Many exporters in those countries are well established in niche markets, supplying specialized parts or services that meet particular logistical or financial requirements of their customers. And many of the businesses in those countries have long-established working relationships with one another, which reduces business risks and other transaction costs relative to what they would face in other regions.

Third, relatively unrestricted markets contribute to the gains from trade among industrialized countries. That trade is characterized by low tariff rates and a relative absence of price supports, exchange rate supports, and other market interventions that can distort business decisions and reduce economic efficiency.

Controlling for differences in trade volumes, the costs to the United States of sanctions on large industrialized countries would be relatively high for each dollar of trade lost. However, those countries are unlikely to become the subject of extensive U.S. sanctions—partly because of the potential cost of disrupting such trade and partly because their governments and people generally share many foreign policy and security concerns with the United States. Those common interests are reinforced by security pacts, trade agreements, and a history of cooperation. The way in

Table 7.
U.S. Trade in Goods, by Country or Region, 1997

Country or Region	Exports: Billions of Dollars	Exports: Percentage of Total	Imports: Billions of Dollars	Imports: Percentage of Total
Western Europe	152.9	22.5	175.9	20.0
Canada	151.8	22.4	170.8	19.5
Japan	64.7	9.5	121.6	13.9
Australia	11.9	1.8	4.9	0.6
Latin America				
Mexico	71.2	10.5	86.7	9.9
Other	62.4	9.2	53.8	6.1
Subtotal	133.6	19.7	140.5	16.0
Asia				
Newly industrialized countries	76.4	11.3	86.1	9.8
China	16.0	2.4	62.6	7.1
Other[a]	52.8	7.7	86.4	9.8
Africa	10.6	1.6	20.1	2.3
Subtotal (Asia and Africa excluding Japan and Australia)	155.8	23.0	255.2	29.1
Eastern Europe	7.6	1.1	8.4	1.0
Total	678.3	100.0	877.3	100.0

SOURCE: Congressional Budget Office based on data from Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, vol. 78, no. 4 (April 1998), pp. 80-83, Table 2.

a. Includes countries of the Middle East and the Pacific.

which the Helms-Burton Act and the Iran and Libya Sanctions Act have been implemented supports the view that major U.S. trading partners are unlikely to be targets: the President has waived provisions in each law that would have penalized businesses or citizens of Canada and Europe. Even when commercial disputes between the United States and those regions do occur, the threats to trade tend to focus narrowly on a few, generally noncritical goods.

Sanctions That Affect Fast-Growing Regions of the World

A few parts of the world do not contribute much to U.S. trade today but may in the near future. They include large developing countries with domestic policies conducive to rapid growth, sometimes described as "big emerging markets."[4] An important example is China, one of the fastest-growing markets in the world. In 1997, more than 2 percent of U.S. exports of goods went to China, and the country was benefiting from $5 billion in direct U.S. investments. China is also becoming an important supplier to the United States, accounting for about 7 percent of U.S. imports of goods.

4. For a discussion of the potential economic impact of U.S. trade with such countries, see Jeffrey E. Garten, "The Big Emerging Markets," *Columbia Journal of World Business*, vol. 31, no. 2 (1996), pp. 6-31; and Department of Commerce, International Trade Administration, *The Big Emerging Markets: Outlook and Sourcebook* (September 1995).

The comparative-advantage basis for current U.S. trade with China and several other emerging markets is changing because of increased education, growth in the capital base, and development of natural resources in those countries. Much of that change is a consequence of U.S. exports and investment, which have helped those nations acquire advanced production technologies and develop new skills. That change will continue as a result of ongoing U.S. investment there.

The long-term benefits of commerce between the United States and emerging markets are likely to be much greater than the immediate gains from trade. As current trade and investment promote economic

Table 8.
U.S. Trade in Services and Income from Foreign Investments, by Country or Region, 1997

Country or Region	Exports or Receipts from U.S. Assets Abroad: Billions of Dollars	Exports or Receipts from U.S. Assets Abroad: Percentage of Total	Imports or Payments on Foreign Assets in the United States: Billions of Dollars	Imports or Payments on Foreign Assets in the United States: Percentage of Total
Western Europe				
Services	86.8	34.3	66.3	39.5
Income	100.7	42.6	125.7	50.2
Canada				
Services	20.8	8.2	15.0	8.9
Income	20.3	8.6	10.8	4.3
Japan				
Services	38.8	15.3	15.4	9.2
Income	9.2	3.9	35.9	14.4
Australia				
Services	5.4	2.1	2.7	1.6
Income	6.1	2.6	0.6	0.2
Latin America (Including Mexico)				
Services	38.7	15.3	33.5	19.9
Income	58.7	24.9	46.3	18.5
Asia and Africa (Excluding Japan and Australia)				
Services	53.5	21.1	30.0	17.9
Income	26.8	11.4	27.9	11.1
Eastern Europe				
Services	3.6	1.4	2.6	1.6
Income	1.6	0.7	1.6	0.7
Total[a]				
Services	253.2	100.0	167.9	100.0
Income	236.0	100.0	250.3	100.0

SOURCE: Congressional Budget Office based on data from Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, vol. 78, no. 4 (April 1998), pp. 92-97, Table 10.

a. The totals are greater than the sum of the numbers shown because they include flows of services and income to and from international organizations.

growth abroad, the resulting access by the United States to larger markets in the future will promote further economic growth at home. Thus, the United States could pay a high future price if sanctions effectively slowed growth in those markets.

Without multilateral support for such sanctions, however, financing for the growth of emerging markets would probably still be available, either directly from other industrial nations or indirectly from U.S. capital markets (despite U.S. sanctions). Thus, unilateral action might only terminate direct investment by U.S. businesses. That would deny U.S. businesses a role in designing and managing new foreign enterprises—and would result in efficiency losses by restricting activities in which the United States has a particular comparative advantage.

(As a minor point, if U.S. sanctions successfully harmed the economies of target nations, the demand for capital by those nations—and, hence, worldwide—could drop slightly. That would depress world interest rates to a slight extent. As a net borrower in world capital markets, the United States would benefit by a small amount from such a decline in interest rates.)

A secondary danger of disrupting commerce with fast-growing regions is that trade patterns might emerge in the future, after sanctions ended, that did not favor continued U.S. exports of high-value-added goods and services. In other words, trade levels could recover, but the terms of trade might no longer be as beneficial to the United States as they had been. The terms of trade could suffer further if sanctions diminished the U.S. presence in industries in which it otherwise could have established market power.

Costs Will Be Small When the Targets Are Not Economic Powers

The United States has most often targeted its sanctions toward a handful of developing or nonmarket economies, some currently or recently ruled by autocratic governments. Many of those countries are low-cost suppliers of goods that industrial nations cannot easily produce on their own—such as petroleum, mineral products, unique agricultural commodities, and labor-intensive manufactured goods. For that reason, the United States receives large gains from trading with those countries as a whole. However, the costs of disrupting trade with any one of those nations are likely to be very small.

For one thing, those countries each account for a tiny share of total U.S. trade and foreign investment. That situation is unlikely to change so long as those countries' social and economic policies continue to restrain their economic growth. A prime example is Cuba, which has long been subject to comprehensive and mostly unilateral sanctions by the United States. Cuba would have severe economic difficulties today even without sanctions. Its low national income partly reflects its domestic economic policies (central planning) and its reliance on exports such as sugar and nickel—low-valued-added commodities whose prices vary greatly with global economic conditions. Even if U.S. businesses were free to export to Cuba, that country currently has very little of value to offer in exchange that is not widely available elsewhere. Lifting sanctions on Cuba would not significantly alter the economic circumstances there, or in the United States, unless the Cuban government was willing to grant U.S. and other foreign investors or its own citizens freer rein in choosing areas to develop and in marketing their products.

Controlling for the low volume of trade, the costs to the United States of disrupting commerce with individual, small developing economies are likely to be small as well. There are three reasons for that likelihood. First, the exports of many developing countries are dominated by a relatively few goods—often raw materials or manufactured goods. For many of those commodities, extensive substitution opportunities are generally available in today's global economy. Second, opportunities are frequently widespread for U.S. firms to redirect particular sanctioned investments elsewhere (to third countries or other economic activities). And third, trade with developing countries is often financed or subsidized by U.S. aid; in such cases, disrupting that trade could actually benefit U.S. consumers.

Opportunities for Substituting Sanctioned Goods

The difference between the United States and developing regions in relative endowments of productive resources can be stark. Thus, the gains to the United States from trade with those regions as a whole should be great. But the gains from trade with any single country in any particular good are usually not significant because U.S. businesses and consumers have extensive opportunities for substitution.

For U.S. importers—whether they are businesses buying intermediate goods or consumers buying finished goods—substitution means the ability to acquire the sanctioned import from another source or to find satisfaction by purchasing similar or different goods. For exporters, substitution means the ability to find markets for their sanctioned exports in other countries or to shift to producing entirely different goods.

The gains from trade derive in large part from the advantages of specialization, but those advantages are smallest for businesses and consumers who are least dependent on particular goods and services. With the ability to switch products, their choice in making many purchases is not where to buy (at home or abroad) but what to buy. Thus, sanctions on the import of a particular item will not force U.S. consumers to purchase more of that item from domestic sources at much greater cost. Instead, consumers can usually buy something else, perhaps at only a slightly greater cost and with little consequence for their overall satisfaction. And in many lines of business, managers can vary the sources and types of materials and equipment they use with little consequence for average costs.

When opportunities to switch markets exist, the costs of disrupting trade with a particular country will be small. In many cases, such trade can be redirected fairly inexpensively. That would be true with a country such as India, whose major exports are textiles (which can be produced almost anywhere) and precious stones and metals (which are available from other countries or can be replaced in consumer budgets by other luxury items).

Opportunities for Investing Elsewhere

U.S. losses from sanctions on investment are likely to be small if the nation's foreign investment activity in the target country is not large and investors can redirect their resources to other opportunities. That argument applies to U.S. direct investment abroad and purchases of foreign securities, which together account for almost half of the changes in private assets abroad (see Table 9). This analysis assumes that the purpose of other financial assets—short-term borrowing and lending—is mainly to finance current trade.[5] Sanctions on those assets would affect personal loans and deposits as well as commercial credit lines for managing working capital.

Foreign investment by U.S. businesses is small compared with domestic investment. In 1997, gross private domestic investment in the United States totaled more than $1.2 trillion.[6] That same year, foreign direct investment by U.S. businesses and purchases of foreign securities (including stocks and bonds sold on U.S. exchanges) totaled about $0.2 trillion.

Only a small share of that foreign investment occurs in countries that are likely to be the target of U.S. sanctions. More than half of the $0.2 trillion in investment occurred in regions that are close allies of the United States on most foreign policy issues: Western Europe, Canada, Japan, and Australia. Those figures indicate that, in general, U.S. investors who are thwarted by sanctions have many other places to put their resources to work, both at home and abroad.

Because sanctions on foreign investment would restrict only particular investment opportunities, not the total level of investment (which is generally considered limitless), domestic savings would change only to the extent that the expected returns from the next-best investment at home or elsewhere were lower than

5. The Bureau of Economic Analysis records changes in those assets as U.S. claims on foreigners by U.S. banks and nonbanking concerns. Sanctions may also apply to claims on U.S. citizens by foreign banks and concerns, but such restrictions are rare.

6. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, vol. 78, no. 7 (July 1998), p. D-13, Table 5.1.

Table 9.
Net Increase in U.S. Private Assets Abroad, by Country or Region, 1997 (In billions of dollars)

Country or Region	Direct Investment	Foreign Securities	Claims on Foreigners by Nonbanking Concerns	Claims on Foreigners by U.S. Banks	Total Assets	Percentage of Total
Western Europe	59.0	27.6	65.0	65.7	217.4	45.5
Canada	10.7	3.8	0.2	3.7	18.5	3.9
Japan	0.8	10.0	2.0	-5.8	6.9	1.4
Australia	1.1	3.0	0	-0.3	3.8	0.8
Mexico	5.9	3.2	0.3	0.9	10.4	2.2
Latin America (Excluding Mexico)	17.9	22.3	51.2	81.5	172.9	36.2
Asia and Africa (Excluding Japan and Australia)	16.8	19.1	1.4	1.6	38.9	8.1
Eastern Europe	1.5	2.0	0.2	0.3	4.1	0.9
Total[a]	121.8	88.0	120.4	147.4	477.7	100.0

SOURCE: Congressional Budget Office based on data from Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, vol. 78, no. 7 (July 1998), pp. 68 and 96, Tables 1 and 10.

NOTE: Totals and percentages are based on unrounded numbers.

a. Includes $4.8 billion in assets of international organizations and assets not allocated to a particular country ($8.1 billion in direct investments and -$3.3 billion in foreign securities and bank claims).

those from the sanctioned investment.[7] The cost of sanctions would come from the reduction in growth of future income as a result of those lower returns. The drop in returns and the slowdown in growth would generally be imperceptible, however.

For one thing, restricting foreign investment is difficult without comprehensive multilateral sanctions on trade and investment. If the sanctions are on one particular activity, such as the petroleum sector, the target country can attempt to finance that activity with its own savings and encourage U.S. financing for its other sectors. If the sanctions are only on direct investment, a target country without sufficient savings of its own can tap U.S. capital markets. Or the target country can turn to other nations, which could then raise funds from U.S. sources. In each case, U.S. investors would still get nearly the same returns from the sanctioned investments.

The Administration cited that logic in its May 1998 decision to grant a waiver from the extraterritorial sanctions of the Iran and Libya Sanctions Act for a planned petroleum investment in Iran by Total of France (and its Russian and Malaysian partners). The U.S. government believed the project would proceed regardless of U.S. sanctions. The Russian partner, Gazprom, had already dropped its effort to secure financing from the Export-Import Bank to buy U.S. equipment and services because of the threat of sanctions, deciding instead to sell securities in New York to finance its activities.

Sanctions That Reduce Foreign Aid or Correct Market Distortions

Most observations about the benefits of trade apply to sanctions that disturb trade patterns that are based on a country's relative endowment of resources—things

7. The expected returns to U.S. firms from investing in developing regions often appear to be significantly higher than the returns from domestic investment. But those higher returns generally come with greater risk, as the recent financial crisis in Asian economies demonstrates. Capital markets work to ensure that risk-adjusted returns from domestic and foreign investment remain, on average, close to one another.

such as capital and technology, an educated labor force, and natural resources. Not all international flows of goods and capital fit that mold, however, especially flows with developing nations and nonmarket economies.

Certain U.S. government actions, such as limits on foreign aid and export subsidies, may actually reduce distortions of trade to the benefit of U.S consumers.[8] In the view of some analysts, those actions help consumers by lowering domestic prices for the exported goods (as export sales are redirected to local markets). Consumers may benefit further from lower taxes if the restrictions on assistance cause total government outlays to drop. (Other analysts, however, point out that U.S. export subsidies can serve to counter the trade promotion activities of other governments and improve the United States' terms of trade. But those analysts probably overstate the benefits from the government's support of exports.)

In some cases, government action to restrict trade may improve the nation's terms of trade by countering the uncompetitive practices of large international companies or the efforts of foreign governments to protect their own industries.[9] Other restrictions may have the effect of addressing social costs—such as the environmental costs of oil use or the security costs of oil imports—that are not fully reflected in the prices of traded items.[10] The U.S. economy may actually benefit from sanctions on trade that is subject to those distortions, although the ultimate benefit would also be small. In practice, many government restrictions on trade serve only to protect inefficient U.S. industries and raise costs to U.S. consumers.[11]

Not all distortions of trade hurt U.S. consumers, however. For example, policies of foreign governments that make their exports cheaper than would otherwise be the case benefit U.S. consumers. If the other countries do not gain market power as a result of below-cost pricing, restricting such trade could be costly to the economy.

Government Programs to Minimize Adjustment Costs

Many reasons exist for believing that capital and labor resources will remain fully employed, or quickly return to full employment, as the economy adjusts to changes in trade patterns, even though some businesses and workers may ultimately produce and earn less than they did before. In some circumstances, however, temporary unemployment and reduced output could complicate the return to full employment.[12] Those losses in work and activity, caused by the idling of resources, constitute costs of adjusting to disruptions in trade. As noted in Chapter 1, market rigidities—such as price regulations and factors that keep capital and labor resources from shifting to new markets and new regions—can impede the adjustment to, and exacerbate the economic costs of, sanctions.

Research on the importance of those market rigidities and adjustments costs is mixed.[13] However, many analysts believe that markets—particularly markets for labor and capital—are much more flexible

8. For a discussion of trade-distorting programs, see Troy G. Schmitz, Andrew Schmitz, and Chris Dumas, "Gains from Trade, Inefficiency of Government Programs, and the Net Economic Effects of Trading," *Journal of Political Economy*, vol. 105, no. 3 (June 1997), pp. 637-647.

9. For a general discussion of uncompetitive practices and other factors that undermine the comparative-advantage basis for trade, see Paul R. Krugman, *Rethinking International Trade* (Cambridge, Mass.: MIT Press, 1990). For an accounting of foreign government barriers, see Office of the United States Trade Representative, *1997 National Trade Estimate Report on Foreign Trade Barriers* (1997).

10. For a review of cost estimates for those factors, see Congressional Research Service, Environment and Natural Resources Policy Division, *The External Costs of Oil Used in Transportation*, CRS Report for Congress 92-574 ENR (June 17, 1992); and John L. Moore, Carl E. Behrens, and John E. Blodgett, *Oil Imports: An Overview and Update of Economic and Security Effects*, CRS Report for Congress 98-1 ENR (Congressional Research Service, December 12, 1997).

11. See Congressional Budget Office, *How the GATT Affects U.S. Antidumping and Countervailing-Duty Policy* (September 1994).

12. See Michael Bruno and Jeffrey Sachs, *Economics of Worldwide Stagflation* (Cambridge, Mass.: Harvard University Press, 1985); and Steven Davis and John Haltiwanger, *Job Creation and Destruction* (Cambridge, Mass.: MIT Press, 1996).

13. Analysis critical of the effect on the business cycle of market rigidities and productivity shocks appears in Douglas Bohi, *Energy Price Shocks and Macroeconomic Performance* (Washington, D.C.: Resources for the Future, 1989); and David E. Lebow, "The Covariability of Productivity Shocks Across Industries," *Journal of Macroeconomics*, vol. 15, no. 3 (Summer 1993), pp. 483-510.

today than at any time in the past. That suggests that adjustment costs should be minimal.

In theory, the federal government can diminish the transitory consequences of sanctions by supporting the training and relocation of workers. In reality, the government's ability to lessen those consequences is not clear. Studies indicate that past federal assistance to workers directly hurt by foreign competition has not been effective in restoring their wages.[14] However, other government assistance programs not specifically targeted toward trade adjustment, such as unemployment insurance, may be available.

Nevertheless, the danger of large adjustment costs from sanctions that narrowly target one product or one country is slim, given the size of the U.S. economy compared with the sanctioned trade. Opportunities for local reemployment requiring comparable skills are relatively widespread, at least in the country's large metropolitan areas.

14. See, for example, Paul T. Decker and Walter Corson, "International Trade and Worker Displacement: Evaluation of the Trade Adjustment Assistance Program," *Industrial and Labor Relations Review*, vol. 48, no. 4 (July 1995), pp. 758-774.

Chapter Five

Estimates of the Domestic Costs of Sanctions

Any economic sanction can inspire a range of estimates of its domestic costs. Some of those estimates will highlight the income loss for one sector of the economy; others will focus on the general loss for the nation as a whole. Both types of estimates may be valuable to policymakers—showing them that sanctions can harm individual groups in certain circumstances, although other groups may benefit, and that the ultimate net costs to the entire nation may be negligible.

The Congressional Budget Office has reviewed existing research to identify a range for the general costs of sanctions that restrict a given amount of trade under various circumstances. That research supports the view that for sanctions targeting a particular country or commodity, costs to the U.S. economy are likely to be greater from multilateral actions than from unilateral ones. In addition, costs will vary by the type of economy targeted. They will generally be:

- Small for small developing economies, which account for little current U.S. trade (much of it replaceable);
- Medium for big emerging economies, such as China, which are likely to account for an important share of U.S. trade in the future; and
- Large for industrialized economies, which are highly integrated with the U.S. economy and already account for a significant share of U.S. trade.

The lowest cost to the overall economy would come from a unilateral sanction imposed on a small developing economy. ("Small" refers to the size of the economy, not the population.) In all, countries in that category—which include most of the nations of Latin America, Africa, Asia, and Eastern Europe—buy about 15 percent of U.S. exports. Current sanctions include a large number of unilateral actions against small economies. Research on the effects of those sanctions indicates that the cost of disrupting trade with such countries in the future would be a national income loss of 5 cents for each $1 decrease in exports.

The highest cost would come from sanctions imposed on a large industrialized economy. Countries in that category—including Western European nations, Canada, Japan, and Australia—account for about 60 percent of U.S. exports. Studies of the gains that result from lowering trade barriers suggest that initiatives to restrict such trade, and reciprocal actions by the targeted country that cause global trade to contract, could decrease national income by as much as 35 cents for each $1 decrease in U.S. exports.

The income losses from cutting off trade with a big emerging economy such as China would probably fall somewhere within the broad range of 5 cents to 35 cents for each $1 loss of exports, depending on the nature of the trade that was disrupted.

Estimates that focus on particular sectors of the economy generally produce much higher figures: on the order of $1 in costs for each $1 loss of exports. In

contrast to the situation with national costs, total losses for individual businesses are likely to be larger from unilateral sanctions than from multilateral sanctions.

Although nationwide economic costs end up being much smaller than losses to particular sectors, those losses may serve as a useful indicator of the social costs of adjusting to specific restrictions on trade. The same research that showed a national income loss of 5 cents for each $1 loss of exports concluded that current sanctions were responsible for reducing U.S. exports of goods by as much as $19 billion each year. Presumably, extending that analysis to include exports of services would raise that cost. Although such losses may appear small compared with the United States' total exports of goods (nearly $700 billion in 1997), that reduction in sales would be significant for the individual businesses, workers, and communities most directly affected.

However, those assessments of economic loss (whether for the nation as a whole or for individual businesses) probably overestimate the costs of sanctions for at least three reasons. First, a number of methodological issues suggest that the costs from raising barriers to trade may be less than the gains from lowering barriers by an equal amount. Second, research on the effects of current sanctions generally fails to account for factors other than sanctions that may contribute to low levels of trade with sanctioned countries. And third, many actions to impose sanctions on trade with particular countries actually involve government assistance, not open commerce.

Studies of Costs to the Nation

This study is primarily concerned with the welfare costs (or net costs to the general economy) of sanctions that the government may impose in the future. Only one major study has attempted to estimate the welfare loss and trade loss attributable to current sanctions—a study conducted by Gary Hufbauer and others in 1997 (see Table 10). Generalizing from that result to new sanctions is difficult, because no way exists to identify definitely (or even approximately) what effect individual sanctions are having on trade and, thus, on the overall economy. However, some additional indication of the costs of new sanctions can be gleaned from research into the welfare gains and changes in trade levels that result from removing barriers to trade.

On first approximation, the benefits of opening trade (such as by eliminating tariffs) should be equal to the costs of closing it (such as by imposing sanctions). Thus, studies that estimate the welfare benefits of trade-opening policies could be used to predict the total costs of sanctions that would restrict trade by the same amount simply by changing the signs of the estimates from positive to negative. (Different researchers represent those welfare benefits as increases in consumption, national income, or gross domestic product.)

That approach, however, does not account for differences in the type of trade affected (such as exports versus imports) or in the scope of the change in trade. Like sanctions, various free-trade initiatives apply directly to different kinds of trade flows. For the sake of simplicity, this study focuses on changes in exports and overlooks the issue of the relative effectiveness of different types of sanctions. The rationale for that generalization is that broad market forces usually ensure that changes in exports are matched by changes in imports, and vice versa, so it does not matter whether a sanction is viewed as a drop in exports or imports.

To account for differing scopes of change, the study uses research results to derive foreign-trade multipliers—or ratios of the change in economic welfare to the change in the value of U.S. exports. Analysts can then estimate the total welfare costs for any future sanction by multiplying that ratio by the amount of trade (whether exports or imports) that the sanction would restrict.

Sanctions on Large Economies

Most of the empirical studies of the gains from free trade focus on total U.S. trade, which is dominated by large industrialized countries. As a result, the best indicator of the costs of disrupting a broad range of trade with industrialized countries may be income

losses that mirror those reported gains. The short-term findings of a number of the studies—"short term" meaning in the first year or two of the policy change—suggest foreign-trade multipliers that range from 0.15 to 0.35 (see Table 11). Those multipliers indicate that the costs of sanctions that effectively restrict trade with large industrialized countries may be from 15 cents to 35 cents for each $1 reduction in exports.

Differences in the methodologies and analytical goals of those studies make comparing their results difficult, but several generalizations are possible. For a given dollar amount of change in exports:

Table 10.
Selected Studies of the Economic Welfare Gains from Changes in Trade Policy

Source and Year of Study	Nature of Policy Change	Base Year Analyzed	Basis for Welfare Gain	Base-Year Welfare[a] (Billions of dollars)	Base-Year Exports (Billions of dollars)
McKibbin (1997)	Multilateral elimination of tariffs with APEC and Europe[b]	1996	Consumption	5,207.6	870.9
	Unilateral elimination of tariffs with APEC and Europe[b]	1996	Consumption	5,207.6	870.9
Ho and Jorgenson (1994)	Worldwide, multilateral elimination of tariffs (post-Tokyo Round)	1980	Consumption[c]	1,760.4	278.9
	Worldwide, multilateral elimination of tariffs and nontariff barriers to trade (post-Tokyo Round)	1980	Consumption[c]	1,760.4	278.9
Brown and Others (1995)	Worldwide, multilateral reduction in tariffs on industrial goods (Uruguay Round)	1990	GDP	5,743.8	557.3
	Worldwide, multilateral reduction in barriers to trade in services (post-Uruguay Round)	1990	GDP	5,743.8	557.3
Hufbauer and Others (1997)	Removal of all U.S. sanctions on trade and investment worldwide	1995	National income	5,912.3	818.4
Hufbauer and Elliott (1994)	Unilateral elimination of tariffs and other barriers protecting 21 major U.S. industries	1990	National income[d]	4,652.1	557.3

SOURCE: Congressional Budget Office based on information from the studies indicated; see the bibliography for complete citations.

NOTES: APEC = Asia-Pacific Economic Cooperation (forum); GDP = gross domestic product.
Consumption is personal consumption spending.

a. Consumption, GDP, or national income, as indicated.

b. APEC members are Australia, Brunei, Canada, Chile, China, Indonesia, Japan, Malaysia, Mexico, New Zealand, Papua New Guinea, the Philippines, Singapore, South Korea, Taiwan, Thailand, and the United States.

c. The authors also identify welfare as "full" consumption, which includes purchases of goods and services and consumption of leisure time.

d. The authors define the efficiency (or welfare) gain as the sum of changes in consumer surplus and producer surplus but identify those concepts with changes in income.

Table 11.
Estimates of the Relationship Between Changes in Economic Welfare and Changes in Exports

Source and Year of Study and Base Year Analyzed	Percentage of Change in Welfare		Percentage of Change in Exports		Implicit Foreign-Trade Multiplier (Ratio)[a]	
	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
Studies of the Gains from Trade Liberalization						
Multilateral Changes Involving All Sectors						
McKibbin (1997): Tariffs with APEC and Europe, 1996[b]	n.a.	1.73	n.a.	21.9	n.a.	0.45
Ho and Jorgenson (1994)						
Tariffs only, 1980	0.16	0.74	6.7	6.5	0.15	0.70
Tariffs and other quantitative barriers, 1980	0.35	0.36	6.5	7.2	0.35	0.85
Multilateral Changes Involving Specific Sectors						
Brown and Others (1995)						
Tariffs on industrial goods, 1990	0.10	n.a.	2.9	n.a.	0.35	n.a.
Barriers to trade in services, 1990	0	n.a.	4.2	n.a.	0	n.a.
Unilateral Changes						
McKibbin (1997): U.S. Tariffs on APEC and European Imports, 1996[b]	n.a.	0.23	n.a.	14.5	n.a.	0.10
Hufbauer and Elliott (1994): All Protection of 21 Major U.S. Industries, 1990	0.08[c]	n.a.	2.7[d]	n.a.	0.20	n.a.
Studies of the Costs of Current Sanctions						
Hufbauer and Others (1997), 1995[e]	0.014 to 0.017[f]		1.8 to 2.3[g]		0.05	

SOURCE: Congressional Budget Office based on information from the studies indicated (see the bibliography for complete citations) and from Council of Economic Advisers, *Economic Report of the President* (February 1998).

NOTES: APEC = Asia-Pacific Economic Cooperation (forum); n.a. = not available.

Change in exports is the product of base-year exports and percentage change in exports from baseline. Change in welfare is the product of base-year welfare (from Table 10) and percentage change in welfare from baseline. That methodology assumes the same baseline rate of growth in exports and welfare.

a. Calculated as the absolute change in the measure of welfare divided by the absolute change in exports, rounded to the nearest 0.05.

b. APEC members are Australia, Brunei, Canada, Chile, China, Indonesia, Japan, Malaysia, Mexico, New Zealand, Papua New Guinea, the Philippines, Singapore, South Korea, Taiwan, Thailand, and the United States.

c. Calculated as the change in efficiency attributable to removing protection ($3.5 billion) divided by 1990 national income.

d. Calculated as the induced change in imports ($14.8 billion) divided by 1990 exports.

e. Statistical analysis combining short- and long-term effects.

f. Calculated as the estimated welfare loss ($0.8 billion to $1.0 billion) divided by 1995 national income.

g. Calculated as the loss of export sales ($15 billion to $19 billion) divided by 1995 exports.

- The change in national income increases with time;
- The income change increases with the extent of the policy change (such as from only tariffs to tariffs and other quantitative restrictions); and
- The income change is larger if the target country can retaliate.

According to the models used in those studies, the costs of sanctions are higher in the long term than the short term largely because reduced capital investment and technology diffusion by the United States has a compounded effect on economic growth at home and abroad.[1] The Cold War restrictions on trade with the Communist Bloc and the current sanctions on North Korea, Cuba, Iran, and Libya can certainly be described as long term. But in the case of the large economies that are major U.S. trading partners, the appropriate focus for an assessment of sanctions is probably short-term costs. Strong social and business relationships between the United States and those countries would create pressure for any trade disputes to be resolved quickly.

Reasons That Costs May Be Overstated. In actuality, the range used to approximate the short-term economic costs of multilateral sanctions—from 15 cents to 35 cents—probably represents an upper bound for those costs. One reason is that the range is based on the analyses by Brown and others and by Ho and Jorgenson of multilateral liberalization (reductions of trade barriers among all countries). Those results would be most indicative of the costs of a global trade war that resulted from a cycle of sanctions and retaliations. The conceptual opposite of multilateral sanctions (in which many countries impose sanctions on trade with one country) is not multilateral liberalization but unilateral liberalization (in which one country reduces barriers to trade with all countries).

The United States would not gain as much if it acted unilaterally to liberalize trade as it would if it and all other countries reduced their trade barriers together. A comparison of two scenarios from the 1997 analysis by McKibbin demonstrates that point. One, which considers long-term benefits to the United States from multilaterally reducing barriers to trade with European and Asian nations, indicates a benefit of 45 cents per dollar increase in trade. The other scenario, which considers the long-term benefits from unilaterally reducing barriers to imports from those same nations, indicates a benefit of only 10 cents per dollar increase.

A second reason that the range for the short-term costs of sanctions may be too high is that the models that yield those estimates do not fully represent the general-equilibrium response of international and U.S. economies to policy changes. The less general the representation, the bigger the potential exaggeration. Two comparisons demonstrate that point. In the case of unilateral liberalization, the analysis of Hufbauer and Elliott (which narrowly focuses on the effects of unilateral tariff reductions for 21 U.S. industries but ignores offsetting changes in other industries and countries) indicates a benefit of 20 cents per dollar increase in trade. That is twice the 10 cent benefit from unilateral liberalization indicated by the McKibbin model (which more generally represents changes in all U.S. industries and in world capital flows). In the case of multilateral liberalization, the analysis by Ho and Jorgenson (which considers changes in all U.S. industries but ignores changes in foreign economies) yields estimates that range from 70 cents to 85 cents per dollar increase in trade. In contrast, the McKibbin analysis of multilateral liberalization (which more generally accounts for changes in foreign economies) indicates long-term benefits of only 45 cents per dollar increase. McKibbin shows that some of the gain in U.S. output is attributable to investment by other countries, which in turn diminishes the gain in U.S. income and consumption.

Further Caveats on Model Results—Assumptions About Adjustment Costs. The range of 15 cents to 35 cents comes from the analyses by Brown and others and by Ho and Jorgenson, which generally ignore any short-term costs of adjusting to changing trade patterns. Adjustment costs, which were described in

1. The estimates of costs are based on research that presents changes in welfare and exports as percentage deviations from baseline projections. The method used to calculate long-term effects—converting those changes back to absolute deviations and dividing—implicitly assumes that the baseline ratio of welfare to exports is constant. If instead the baseline level of trade grew over the long run, the long-term foreign-trade multipliers would be lower.

Chapter 1, can occur with any change in trade policy. In the real world, such costs would diminish the benefits from liberalizing trade but would add to the costs of restricting trade. On that basis, the welfare gains that those models present are too high as estimates of net benefits from liberalization but may more accurately represent the costs of sanctions. However, CBO has no basis for concluding whether the absence of adjustment costs, on its own, causes those gains to understate or overstate the costs of sanctions.

Sanctions on Minor Trading Partners

The United States often targets its trade sanctions toward developing or nonmarket economies, which together account for just 15 percent of the nation's total trade. The costs to the United States of sanctions on small developing economies may be only 5 cents for each $1 reduction in exports. That estimate is based on the results of a 1997 study by Gary Hufbauer and others (see Table 11). Hufbauer investigated the statistical relationship between current sanctions (including sanctions on the United States by other countries) and levels of trade in goods. Those sanctions encompass a large number of unilateral U.S. actions against small economies.

Hufbauer's analysis captures both the long- and short-term effects of sanctions, since actions against different countries have been in place for different lengths of time. On average, the analysis suggests a multiplier (0.05) that is much lower than those from the studies of multilateral and unilateral initiatives to liberalize trade, both in the short run and the long run.

Sanctions on Big Emerging Economies

By deduction, the short-term income losses from cutting off trade with big emerging economies are likely to fall somewhere within the broad range for the other two types of economies: 5 cents to 35 cents for each $1 loss of exports. The composition of U.S. trade with big emerging nations has similarities to trade with both developing countries and industrialized countries. And the volume of trade with big emerging economies falls between those of the other two categories. The fast-growing economies of China, Hong Kong, South Korea, Singapore, Taiwan, and Mexico together account for about 20 percent of U.S. exports.

For those countries, trade and foreign investment may be especially important for continued productivity and income growth. If foreign commerce contributes to growth abroad, restricting that commerce would tend to raise the long-term costs of sanctions to the United States. However, as with other target countries, sanctions on big emerging economies would tend to be less costly if they applied to only a few goods or services, to easily substitutable ones, or to foreign aid.

Sanctions on Specific Goods or Foreign Assistance

Research into the gains from trade generally focuses on policies that affect a broad range of goods and services that trade in open markets. The actual costs of sanctions are likely to be smaller than such research indicates because sanctions often apply more narrowly: to specific goods or to the government's foreign assistance and trade promotion activities.

In general, the fewer the types of goods and services affected by sanctions on a country, the greater the substitution opportunities for that trade, and the smaller the domestic costs of the sanctions. Many trade models do not fully represent the availability of close substitutes for the raw materials and standardized goods that are the major exports of developing countries—the most frequent target of sanctions. Thus, those models overstate the cost of such sanctions.

A further bias toward overstating welfare loss may result if research into the gains from trade does not fully represent the role of current market interventions. For example, foreign aid pays for an important share of U.S. exports to developing countries, and federal subsidies artificially boost U.S. exports worldwide. Such programs are generally justified by humanitarian and national security considerations; their domestic economic benefits are often negligible, if not negative. Hence, the costs of cutting off that assistance would also be small. Moreover, as noted in Chapter 3, if the sanctions do not affect total appropriations for foreign aid or trade promotion, restricting

Table 12.
Selected Estimates of the Direct Annual Costs of U.S. Sanctions on Exports

Source and Year of Study	Industry	Direct Loss of Export Sales (Billions of dollars)	Total Sales Loss, Including Related Industries (Billions of dollars)	Total Jobs Affected
National Academy of Sciences (1987)	High-technology exports	7.3	17.1	188,000
Richardson (1993)	All exports	29.0	n.a.	n.a.
Hufbauer and Others (1997)	All exports	14.9 to 19.0	n.a.	200,000 to 260,000

SOURCE: Congressional Budget Office based on information from the studies indicated; see the bibliography for complete citations.

NOTE: n.a. = not available.

the availability of support to particular countries should have no impact on the national economy.

Studies of Costs to Particular Markets

Larger estimates of the domestic costs of sanctions generally come from research that focuses on the immediate losses for single industries or sectors of the economy. Those estimates may simply reflect the value of sanctioned exports or, for industries harmed by import sanctions, the increased cost of imported goods. Some studies make use of national income and employment multipliers to measure both direct and indirect losses of sales and employment. (Indirect losses would include the disruption in sales of materials and services to the industries directly affected.) Such losses are often easier to estimate than national costs, which must rely on detailed models of the economy.

A 1987 study by the National Academy of Sciences concluded that U.S. restrictions on high-technology exports cost the nation $7.3 billion in direct losses of export sales each year and $17.1 billion in total losses (including the impact on sales for related industries). In addition, those sanctions affected 188,000 U.S. jobs, the study estimated (see Table 12). Studies that looked at all export sanctions—by David Richardson in 1993 and Gary Hufbauer and colleagues in 1997—reported higher estimates. Richardson concluded that the direct loss from U.S. sanctions on exports was $29 billion a year, whereas Hufbauer estimated that figure at $15 billion to $19 billion, with up to 260,000 U.S. jobs lost. Hufbauer's estimates received particular attention and have been widely cited. (For a critique of that study's estimating methods, see the appendix.)

Research of that type, however, has significant limitations that are important to keep in mind. Studies based on restrictions for particular industries provide no indication whatsoever of the net costs of sanctions to the nation as a whole or even to other industries. They generally ignore direct benefits of sanctions that may be equally obvious and easy to estimate. For example, a recent paper by the American Petroleum Institute that assessed the impact of multilateral sanctions on petroleum investments in Iran, Iraq, Libya, and Nigeria looked only at the increased costs to consumers of oil.[2] It ignored the direct gains for U.S. oil companies and oil-producing regions as well as the new demand for U.S. exports as foreign oil producers spend their increased income.

2. Edward D. Porter, *Economic Sanctions Against Oil Producers: Who's Isolating Whom?* Issue Analysis No. 105 (Washington, D.C.: American Petroleum Institute, August 1998), Table 4.1.

Despite their limitations, estimates of industries' losses from sanctions can have value for policymakers. Most important, those partial results can draw attention to the social costs of the adjustment that the economy may need to undergo. Policymakers often have special concerns about such transitions: What regions will lose business? And how many people will need to find new employment? As discussed in Chapter 4, many economists have reasons for believing that the economy's adjustment to most sanctions will be quick. But exceptions may exist for sanctions that affect certain markets, and the adjustment may not be easy for all communities or for all individuals.

The idea that national employment holds steady may be of little consolation to workers who accept lower wages, become unemployed for a period of time, or have to relocate because of sanctions. In general, the people who would bear most of the costs of adjustment would be employees in the affected industries or certain U.S. consumers. For sanctions on exports, those people would be workers in the export industry. For sanctions on imports, they can be more difficult to identify. Some people directly involved in actually importing the sanctioned commodity, such as dock workers or wholesalers, could be affected. But to the extent that import sanctions resulted in higher prices, the final consumers of the sanctioned commodity or the owners and workers of the businesses that purchased that commodity would bear the direct costs.

Other Cost Considerations

For all of the reasons discussed in this analysis, the effects of future sanctions on the U.S. economy as a whole are likely to be negligible. Hufbauer's 1997 study indicates that despite large losses in export sales, the net cost to the nation from all current sanctions (including sanctions on the United States by other countries) may be an income loss of only $1 billion. That figure represents just 0.01 percent of a national income of more than $6.6 trillion. Results from large models of international trade also suggest that future sanctions would impose costs on the economy that were much lower than the actual value of trade disrupted.

Nevertheless, many Members of Congress remain concerned about the potential cost of imposing or extending sanctions. Just because that cost has been small in the past does not mean it will continue to be. Political disputes with other large industrialized nations over certain extraterritorial sanctions—such as the ones authorized by the Helms-Burton Act and the Iran and Libya Sanctions Act—could escalate. And some of the current targets of U.S. sanctions could soon become economic powers.

As outlined earlier, gaining a complete picture of the domestic costs of a new sanction requires first considering whether the language of the sanction would actually add new restrictions on trade. Then analysts need to assess the immediate cost to the industries that may be adversely affected and the net cost to the national economy. In addition, two questions beyond the immediate changes in economic activity are important: What is the cost of alternative actions, and what are the benefits of successfully pursuing foreign policy goals?

In a few extreme situations, the alternative to sanctions may be military intervention. Aside from endangering lives, such intervention consumes a nation's resources. For example, some people believe that on a cost basis alone, continuing the sanctions on Iraq in the hope of changing the government there or its behavior is preferable to taking further military action toward the same end. The net cost of those sanctions to the United States is probably close to zero.[3] A further U.S. military buildup in the region, by contrast, would cost billions of dollars.

Of course, inaction by the United States can have economic costs too. Allowing Iraq to reassert its dominance in the Persian Gulf region could destabilize oil markets and raise the prospect of expanded military intervention by the United States in the future.

Very few international situations call for military intervention, however—because of the nature and

3. Since the Persian Gulf War, additional supplies of oil have come onto the world market at little extra cost. And to the extent that oil prices are higher than they would be otherwise, the costs to U.S. consumers are partially offset by gains for oil-producing regions of the United States. For more information on the military costs of the war and a discussion of its economic effects, see Congressional Budget Office, *Rethinking Emergency Energy Policy* (December 1994).

scope of most foreign policy concerns and because of the United States' social and economic relationships with most of its trading partners. Nonmilitary alternatives to sanctions include various types of diplomatic efforts or government assistance to encourage countries to change their policies. Those alternatives could carry their own price tags, which would need to be compared with the costs of sanctions. In the end, though, costs—whether large or small—would most likely be only one of the factors that policymakers would consider in deciding whether to impose sanctions.

Appendix

A Critique of Research by Hufbauer and Colleagues on the Direct Costs of Sanctions

The simplest studies of costs to the U.S. economy from imposing sanctions on other countries focus on losses in a single market. They generally consider only the direct and immediate losses for businesses (and in some cases their suppliers) and do not account for subsequent changes in market prices or the response of businesses and consumers to those price changes. Such estimates may be valuable for the insights they provide about the extent of adjustment that will take place because of sanctions. But particular assumptions underlying those estimates—some of them not obvious—can lead to exaggerations of even the immediate losses.

A 1997 paper by Gary Hufbauer and colleagues Kimberly Elliott, Tess Cyrus, and Elizabeth Winston represents an important and widely cited example of research on the direct costs of sanctions that restrict U.S. exports.[1] That research includes several steps to gauge how sanctions may have affected U.S. exports of goods and how many jobs those exports could have created. The paper estimates the loss of income for the affected workers—a partial-equilibrium approach that accounts for their reemployment in other activities. But its estimates of the loss of export sales have generally received the greatest attention.[2]

In some respects, Hufbauer's paper appears to underestimate the current direct costs of sanctions. For example, it considers only changes in exports of goods, not goods and services. In other respects, the estimates of loss appear too high. For instance, the analysis does not attempt to net out the benefits of increased trade with nonsanctioned countries. On the whole, the most important point to make about the paper's results is that the loss in national income—$1 billion—is very small relative to total national income.

A Gravity Model of U.S. Exports

Hufbauer's research first identifies a statistical relationship between the dollar value of U.S. exports of goods to each of 84 countries and special characteristics of those countries that the authors consider impor-

1. Gary Clyde Hufbauer and others, *U.S. Economic Sanctions: Their Impact on Trade, Jobs, and Wages*, working paper (Washington, D.C.: Institute for International Economics, 1997), available at http://www.iie.com/CATALOG/WP/1997/SANCTION/sanctnwp.htm.

2. For example, see National Association of Manufacturers, *A Catalog of New U.S. Unilateral Economic Sanctions for Foreign Policy Purposes, 1993-96* (Washington, D.C.: National Association of Manufacturers, 1997).

tant in determining the level of trade. Among those characteristics are the size of the country (in terms of economic output), its distance from the United States, and an indicator of the existence and severity of sanctions on its trade with the United States. The year of analysis is 1995; Hufbauer identifies 26 countries that were, or recently had been, subject to some level of sanctions at that time.

Economists describe that approach as a gravity model. Its description of bilateral trade is similar to Newton's formula for gravity: trade increases with the size of the countries and decreases with the distance between them. In general, the model appears to work well because economic size limits the ability of small countries to pay for imports, and transportation costs can serve as a barrier to some types of trade.[3]

The resulting equation indicates that U.S. exports to the 26 sanctioned countries are smaller than those countries' economic size and distance from the United States (and other variables) would have suggested. That equation enables the authors to estimate how much exports could have increased if the United States had not imposed sanctions on those countries. They gauge the loss of annual export potential at $19 billion. In addition, Hufbauer uses an equation that relates the combined exports of large industrialized nations—members of the Organization for Economic Cooperation and Development, including the United States—to characteristics of the importing countries. That equation produces a smaller estimated loss, $15 billion.

In a final step, Hufbauer identifies the number of U.S. jobs directly or indirectly supported by merchandise exports and the difference in wages between workers in export industries and other parts of the economy. (Those statistics come largely from the Department of Commerce, which is in charge of promoting U.S. exports.)[4] For 1995, each $1 billion of merchandise exports supported about 13,800 jobs, and export workers earned about 12 percent (or $4,100 per year) more than the average manufacturing wage. On that basis, Hufbauer estimates that the job loss because of sanctions may be as high as 260,000, and the annual income loss, after those people return to work in other activities, may be as high as $1 billion. That loss works out to a 5 cent reduction in income for each dollar of lost exports (see Table 11 on page 40).

Estimates of Export Losses

The gravity model explains about 80 percent of the variation between countries in levels of U.S. exports in 1995. However, Hufbauer's research contains a number of potential biases.

First, by considering only variations in the trade of goods, the analysis misses important variations in the trade of services (such as tourism, transportation, and financial services) and in government transfers. Service exports, which equal about one-third of the total level of goods exports, include military sales. Government transfers include transfers of goods under military and other foreign assistance grants. Terminating military sales and government grants is often the first step in imposing sanctions on trade with a country, so omitting those forms of trade can understate the direct losses from sanctions. However, the economic costs of disrupting that type of government-assisted trade may be small or even negative.

Second, the paper's focus on export losses for the sanctioned economies ignores possible export gains for other countries and the economic benefits of those gains. In other words, the analysis looks only at partial effects. Unlike the first bias, that one could produce an overstatement of the export losses due to sanctions.

Third, the apparent ability of the model's sanctions variable to explain the lower-than-expected ex-

3. For a discussion of the gravity model and its relationship to the standard economic model of trade based on comparative advantage, see Alan Deardorff, "Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical World," and Jeffrey Bergstrand and Gene Grossman, "Comments," both in Jeffrey A. Frankel, ed., *The Regionalization of the World Economy* (Chicago: University of Chicago Press, 1998).

4. Lester A. Davis, *U.S. Jobs Supported by Goods and Services Exports, 1983-94*, Research Series OIMA-1-96 (Department of Commerce, Economic and Statistics Administration, Office of the Chief Economist, November 1996).

ports to the 26 countries subject to sanctions may be suspect. The strong overall correlation does not confirm the direction of causality or rule out other explanations for those results. The low levels of U.S. exports to those 26 countries may explain more about the decision to impose sanctions than vice versa. A common political tendency in the United States is to take the strongest action where the least harm can come to well-organized domestic interests. Thus, the government often uses sanctions in cases in which there is little trade to disrupt in the first place.[5] Exports to the sanctioned countries in Hufbauer's paper have been low for some time: the percentage of total U.S. goods exports going to those countries in 1997—about 5 percent—is the same as 10 years earlier. (Of course, trade with countries such as Cuba, North Korea, and Iran has been subject to sanctions during that entire period.) With the direction of causality suspect, lifting sanctions may not have any effect on exports.

Other explanations of low exports to those countries are possible, some of which may be closely related to the reasons the United States imposed sanctions in the first place. They include policies of the target countries—such as human rights abuses, military action against neighbors, and internal restrictions on free trade and foreign investment—that generally contribute to poor economic performance. As a result, those countries have little to offer in trade for exports from the United States or elsewhere (that is especially true for countries like Cuba and North Korea). If the statistical indicator of sanctions in Hufbauer's paper is measuring those other explanations, taking away sanctions would not necessarily cause U.S. exports to rise or alter the fundamental conditions that hamper trade.

Estimates of Job and Wage Losses

Aside from concerns about the change in export levels, there are reasons to believe that Hufbauer's estimates of job and income losses may overstate the magnitude of social adjustment in the wake of sanctions. Those reasons relate to his inclusion of estimates of indirect job losses and wage differentials for employees of the export industry.

To the extent that exports actually change, the employees of the businesses that lose sales will suffer the greatest cost of adjusting to that change. Increasingly smaller losses in working hours will result for employees of the businesses that supply the exporters with goods and services, for the employees of businesses that support those suppliers, and so on. The prospect of temporary unemployment for workers in support industries is not so stark as for direct workers. One reason is that the smaller the number of workers displaced relative to total employment in their industry, the easier it is for individual workers to find new jobs.

Consequently, focusing on the combined change in direct and indirect positions probably overstates the social adjustment that a loss of exports would require. The number of full-time positions directly supporting production for export is only 6,800 per $1 billion—or about half of Hufbauer's estimate of 13,800 full-time positions directly or indirectly supporting exports and subject to lowered wages in 1995.[6]

Assumptions about the wage difference between export workers and other workers may also overstate the income loss that would result from the displacement of export workers. For example, Hufbauer's paper focuses on the wages of export workers engaged in producing nonfarm merchandise. But agriculture accounts for about 14 percent of U.S. goods exports, and agricultural workers earn about one-third less than the average for the private sector. Including both farm and nonfarm export workers would probably narrow the wage differential and reduce the estimate of income loss.

A further concern relates to the paper's comparison of export wages and average wages in the manufacturing sector. Only three activities in that sector —lumber and wood products, textile mills, and ap-

5. For a general discussion of interest groups and political decisions about sanctions, see William H. Kaempfer, *International Economic Sanctions: A Public Choice Perspective* (Boulder, Colo.: Westview Press, 1992). Case histories documenting the role of interest groups appear in Anne O. Krueger, ed., *The Political Economy of American Trade Policy* (Chicago: University of Chicago Press, 1996).

6. The figure for direct support comes from Davis, *U.S. Jobs Supported by Goods and Services Exports, 1983-94*, Table 10.

parel and other textile products—have wages lower than the average that Hufbauer reports for manufacturing export workers.[7] If few displaced workers move to those very regional industries, the wage differential between lost export jobs and new jobs diminishes further, if not altogether.

Finally, implicit in all those calculations of income loss is the assumption that the only movement of labor because of sanctions is export workers leaving the trade sector altogether. An analysis that placed more emphasis on general effects would take into account changes in imports. For example, an earlier analysis by Hufbauer and Jeffrey Schott of U.S. trade with Mexico indicates that little difference exists between the wages in export-supported jobs and import-displaced jobs.[8] Their conclusion was that income changes arising from trade policies result more from changes in efficiency than from shifts in occupation.

7. See Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, vol. 77, no. 10 (October 1997), Table B.9.

8. Gary Clyde Hufbauer and Jeffrey J. Schott, *NAFTA: An Assessment* (Washington, D.C.: Institute for International Economics, 1993), Table 2.1.

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